NINETEEN HUNDRED FORTY-ONE — NINETEEN HUNDRED FORTY-TWO

ANNUAL CATALOG

GENERAL INFORMATION AND
COURSES OF STUDY FOR THE SCHOOL YEAR

1941 - 1942

THE STOUT INSTITUTE

Menomonie, Wisconsin

Entered as second-class matter March 10, 1927 at the Post Office at Menomonie, Wis., under the act of August 12, 1914

College Calendar

SECOND SEMESTER 1940 - 1941

Monday, January 27, Registration for Second Semester.
Tuesday, January 28, Second Semester Classes Convene.
Sunday, May 25, Baccalaureate Address.
Thursday, May 29, Commencement.

SUMMER SESSION 1941

Monday, June 23, Summer Session Begins.
Friday, August 1, Summer Session Closes.

REGULAR SESSION 1941 - 1942

Monday, September 8, Regular Session Begins.
Tuesday, September 9, Registration for Freshmen and Other New Students.
Wednesday, September 10, Registration for Matriculated Students.
Thursday, September 11, Classes Convene.
Friday, December 19, Christmas Vacation Begins.
Monday, January 5, 1942, Classes Resume.
Friday, January 23, First Semester Ends.
Monday, Jaunary 26, Registration Day for Second Semester.
Tuesday, January 27, Classes Convene.
Sunday, May 24, Baccalaureate Address.
Friday, May 29, Commencement.

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Board of Trustees

(January 1, 1941)

* * *

Term Expires 1941

Emil Waldow, Green Bay
Paul Weis, Madison
Otto Moeser, Port Washington

Term Expires 1943

Hilding Olson, Superior
J. E. Leverich, Sparta
Thomas Kattnig, Milwaukee

Term Expires 1945

Peter T. Schoemann, Milwaukee
Robert Pierce, Menomonie
Jessel S. Whyte, Kenosha

Ex-Officio Members

John Callahan, State Superintendent of Schools, Madison
Voyta Wrabetz, State Industrial Commission, Madison

Officers of the Board

President: Peter T. Schoemann, Milwaukee
Secretary: George P. Hambrecht, Madison

Stated Meetings of the Board

Regular quarterly meetings of the Board are held on the fourth Tuesday in March, June, and September, and on the third Tuesday in December.

Officers of Administration

* * * * *

BURTON EDSAL NELSON, President.
CLYDE A. BOWMAN, Dean, Division of Industrial Education. Director of Summer Session.
RUTH E. MICHAELS, Dean, Division of Home Economics. Dean of Women.
MERLE M. PRICE, Dean of Men.
GERTRUDE M. O'BRIEN, Registrar.
MINNIE J. BECKER, Secretary to the President.
BRYARD M. FUNK, Business Manager.
RUDOLPH ROEN, Superintendent of Buildings.
WALTER J. ROEHR, Chief Engineer.
MARIAN BOARDMAN, College Nurse.
DR. JULIUS BLOM, College Physician.
RUTH R. PHILLIPS, Director of Halls and Housing, Hostess of Tainter Hall.
KETURAH ANTRIM, Hostess of Tainter Annex.
LAWRENCE N. MARX, Head of Lynwood Hall.

* * *

LILLIAN M. FROGGATT, Librarian.
ROBERT BRUCE ANTRIM, Assistant Librarian.
MYRTLE STRAND, Assistant Librarian.

* * *

BLANCHE KNUTSON, Office Assistant—Stenographer.
LARMON PRICE, Office Assistant—Stenographer.
AGNES WINSTON, Office Assistant—Stenographer.

WOMEN'S CAMPUS

THE STOUT INSTITUTE WOMEN'S DORMITORIES, SHOWING BERTHA TAINTER HALL AT LEFT, EICHELBERGER HALL AT RIGHT, AND TAINTER ANNEX IN THE CENTER, ALL LOCATED ON A LARGE CAMPUS BORDERING ON LAKE MENOMIN.

Faculty

* * * * *

BURTON EDSAL NELSON, President.

Pennsylvania State Normal School, Diploma, 1884; Western Normal College, B. S., 1891; M. S., 1895; The Stout Institute since 1923.

KETURAH ANTRIM, Physical Education.

Lake Forest University, Lake Forest, Illinois, B. A., 1923; University of Wisconsin, Ph. M., 1932; The Stout Institute since 1936.

WILLIAM R. BAKER, Printing and Publications.

Northern Illinois Teachers College, Diploma, 1913; Mergenthaler Linotype School, Certificate, 1920; The Stout Institute, B. S., 1925; University of Minnesota, M. A., 1936; The Stout Institute since 1933.

CLYDE A. BOWMAN, Industrial Education.

State Normal, River Falls, Wisconsin, Diploma, 1907; The Stout Institute, Diploma, 1909; Columbia University, B. S., 1915; University of Wisconsin, M. S., 1927; Graduate Work, University of Wisconsin, second semester 1934-35, 1935-36, 1937-38; The Stout Institute since 1919.

JOHN M. BROPHY, Assistant, Printing.

The Stout Institute, B. S., 1938; University of Minnesota, M. Ed., 1941; The Stout Institute since 1938.

ARTHUR G. BROWN, Education.

Macalaster College, B. S., 1914; University of Wisconsin, M. S., 1928; Graduate Work, University of Minnesota, part-time 1931-36; The Stout Institute since 1920.

MARY LOUISE BUCHANAN, Foods, and Nutrition.

Iowa State College, Ames, Iowa, B. S., 1915; M. S., 1927. The Stout Institute since 1927.

GERTRUDE L. CALLAHAN, English.

University of Chicago, Ph. B., 1912; University of Wisconsin, Ph. M., 1927; The Stout Institute since 1927.

LILLIAN CARSON, Related Arts.

University of Chicago, Ph. B., 1919; M. S., 1926; The Stout Institute since 1927.

DWIGHT D. CHINNOCK, Sheet Metal & General Metal.

River Falls Teachers College, Diploma, 1923; The Stout Institute, B. S., 1937; Graduate Work, University of Minnesota since 1938. The Stout Institute since 1940.

HAROLD R. COOKE, Director of Music.

Certificates in Mus. Theory from Vienna Austria and New England Conservatory of Music. Minneapolis College of Music, B. Mus., 1933; Mac Phail School of Music, M. Mus. Ed., 1940; The Stout Institute since 1934.

MARGARET WINNONA CRUISE, Foods, and Nutrition.

University of Toronto, B. A., 1912; Columbia University, M. A., 1918; Graduate Work, University of Chicago, 1926-27; The Stout Institute since 1927.

HELEN DRULEY EELES, Related Art.

University of Minnesota, B. S., 1931; M. A., 1934; The Stout Institute since 1936.

MARCELINE ERICKSON, Speech.

Columbia College of Expression, Chicago, Ill., 1927 and 1928; Lombard College, B. A., 1929; University of Iowa, M. A., 1932; Graduate Work, University of Iowa, 1936, 1938-39. The Stout Institute since 1940.

H. F. GOOD, Auto Mechanics, Electrical Work, Science.

Iowa State College, B. S. in Electrical Engineering, 1913; B. S. in Agricultural Engineering, 1914; M. S., 1929; The Stout Institute since 1918.

DANIEL GREEN, Machine Drawing, General Drawing.

University of Chicago, B. S., 1914; University of Minnesota, M. A., 1932; The Stout Institute since 1924.

ANN HADDEN, Foods, Institutional Management.

Iowa State College, B. S., 1932; Kansas State College, M. S., 1940; The Stout Institute since 1940.

DORIS M. HALE, Physiology, Biology.

Purdue University, B. S., 1934; M. S., 1937; The Stout Institute since 1938.

H. M. HANSEN, Advanced Woodwork.

The Stout Institute, Diploma, 1918; B. S., 1928; University of Minnesota, M. A., 1936; The Stout Institute since 1912.

FLORENCE E. HOOPER, Chemistry.

Butler University, B. S., 1926; Iowa State College, Ph. D., 1930; The Stout Institute since 1940.

FRANK L. HUNTLEY, English.

Oberlin College, A. B., 1924; The University of Chicago, M. A., 1926; Japanese Language School, Tokyo, Diploma, 1931; Graduate Study, University of Chicago, 1935-38; The Stout Institute since 1938.

LILLIAN JETER, Clothing and Related Art.

Kansas State Agricultural College, B. S., 1916; Columbia University Teachers College, M. A., 1925; The Stout Institute since 1927.

DOROTHY JOHNSON, Home Economics Education.

Kirksville, Missouri State Teachers College, B. S., 1928; University of Missouri, A. M., 1933; Teacher Trainer for Vocational Homemaking Education, State Board of Vocational and Adult Education, The Stout Institute since 1936.

RAY C. JOHNSON, Physical Education, Athletics.

State Teachers College, Moorhead, Minnesota, B. E., 1930; Columbia University, M. A., 1935; The Stout Institute since 1938.

FLOYD KEITH, General Metal, Sheet Metal.

River Falls Normal, Diploma, 1915; The Stout Institute, B. S., 1922; Iowa State College, M. S., 1929; The Stout Institute since 1922.

RAY F. KRANZUSCH, Auto Mechanics, General Mechanics.

The Stout Institute, B. S., 1936; Iowa State College, M. S., 1939; The Stout Institute since 1924.

ANNE MARSHALL, Biological Science.

Denison University, Granville, Ohio, B. S., 1925; Ohio State University, M. A., 1928; Ph. D., 1939; The Stout Institute since 1939.

LAWRENCE N. MARX, Psychology and Education.

Kansas State College, Manhattan, B. S., 1932; M. S., 1933; Ohio State University, Ph. D., 1939; The Stout Institute since 1939.

MARY M. McCALMONT, Chemistry.

Westminister College, New Wilmington, Pennsylvania, B. S., 1906; University of Wisconsin, M. S., 1921; The Stout Institute since 1912.

RUTH E. MICHAELS, Home Economics Education.

The Stout Institute, Diploma, 1905; University of Chicago, Ph. B., 1922; Columbia University, M. A., 1923; The Stout Institute since 1927.

HAROLD C. MILNES, Machine Shop, Foundry, Patternmaking.

Armour Institute, Certificate, 1906; The Stout Institute, B. S., 1928; Iowa State College, M. S., 1936; The Stout Institute since 1916.

PAUL C. NELSON, Woodwork, Carpentry, Visual Education.

The Stout Institute, B. S., 1932; Iowa State College, M. S., 1934; The Stout Institute since 1926.

MERLE M. PRICE, Social Science.

State Teachers College, St. Cloud, Minnesota, Diploma, 1921; University of Minnesota, B. S., 1924; M. A., 1929; The Stout Institute since 1929.

HENRIETTE L. QUILLING, Home Economics Education.

The Stout Institute, B. S., 1931; M. S., 1939; The Stout Institute since 1937.

J. E. RAY, Architectural, Mechanical and Freehand Drawing, Masonry, Building Construction.

Williamson Trade School, Diploma, 1908; The Stout Institute, B. S., 1922; Iowa State College, M. S., 1930; The Stout Institute since 1930.

CORYDON L. RICH, Mathematics and Science.

State Teachers College, Oshkosh, Wisconsin, Ed. B., 1929; University of Wisconsin, Ph. M., 1930; The Stout Institute since 1931.

MABEL C. ROGERS, Foods, and Nutrition.

Michigan State College, B. S., 1910; Columbia University, A. M., 1917; University of Minnesota, Graduate Work, 1933-35; The Stout Institute since 1935.

BOYD CARLISLE SHAFER, History and Social Science.

Miami University, B. A., 1929; State University of Iowa, M. A., 1930; Ph. D., 1932; The Stout Institute since 1932.

A. STEPHEN STEPHAN, Sociology and Economics.

University of Richmond, B. A., 1926; University of Chicago, M. A., 1930; University of Minnesota, Ph. D., 1936. The Stout Institute since 1939.

ELIZABETH B. TRACY, Director of Nursery School.

Cornell University, B. S., 1935; The Merrill-Palmer School, Detroit, 1935-36; Michigan State College, M. S., 1937; The Stout Institute since 1940.

GLADYS TRULLINGER, Home Administration.

University of Nebraska, B. S., 1926, M. S., 1936; The Stout Institute since 1936.

F. E. TUSTISON, Mathematics, Science, General Mechanics.

Ohio Wesleyan University, B. S., 1909; University of Wisconsin, M. S., 1928; The Stout Institute since 1920.

HAZEL VAN NESS, Clothing.

Syracuse University, B. S., 1921; Columbia University, A. M., 1929; The Stout Institute since 1929.

LETITIA E. WALSH, Home Economics Education.

Iowa State Teachers College, B. A., 1915; Columbia University, M. A., 1920; Graduate Study, University of Chicago, 1917. Ohio State University, 1936-37; The Stout Institute since 1920

MARIE WALTERS, Home Economics Education.

Indiana State Teachers College, Terre Haute, Indiana, B. S. 1927; Columbia University, M. A., 1938; The Stout Institute since 1938.

RAY A. WIGEN, Woodwork, Painting and Decorating.

River Falls State Teachers College, Diploma, 1916; University of Minnesota, B. S., 1930; M. A., 1933; The Stout Institute since 1933.

BERTHA TAINTER HALL

AN ATTRACTIVE RECENTLY REMODELED DORMITORY FOR HOME ECONOMICS STUDENTS. A DINING ROOM IS LOCATED IN THE SOUTH WING OF TAINTER HALL, WHERE MEALS ARE SERVED TO RESIDENTS OF THE HALL. UNDER THE DIRECT SUPERVISION OF A TRAINED DIETITIAN.

General Information

LOCATION

The Stout Institute is located in Menomonie, Wisconsin, sixty-five miles east of St. Paul, on the Chicago and Northwestern Railway. Menomonie is also connected with Mississippi River points by the Chicago, Milwaukee, and St. Paul Railway. It is on United States Highway No. 12 and on State Highways Nos. 25, 29, and 79.

HISTORY

With the creation of Wisconsin as a state in 1848, there came prompt recognition of the educational needs of the new commonwealth. Immediately by the creation of its first state normal school, Wisconsin provided for teacher training. While Massachusetts and Pennsylvania preceded Wisconsin in the organization of normal schools, the records show that in 1867 Wisconsin was leading even these states and all other states in the number of state normal schools established. In that year, Wisconsin was operating five state normal schools, one more than existed in any other state. Wisconsin demonstrated its leadership again when in 1911 it provided a teacher training school charged with the preparation of teachers of Home Economics and Industrial Arts. In that year, after eighteen years of operation as a privately endowed training school, The Stout Institute became a state institution.

The Stout Institute pioneered in placing instruction in industrial arts and household arts in a system of public schools. Menomonie was the first city in America in which manual training and domestic science were made a part of the course in all grades of the public schools and high school. This training was under the supervision and instruction of The Stout Institute.

During the early experimental years, these schools were constantly visited and inspected by educators from the east, west, north, and south. The manual and household arts began to find their way into other school systems. Teachers had to be supplied. The Stout Institute alone at that time was ready to furnish them. It was, then, in reply to a general demand, that The Stout Institute became a teacher training college, the first in America to dedicate itself wholly to the preparation of teachers of industrial arts and household arts. It is still the only—as it was the first—college in this country giving itself wholly to that purpose.

Indirectly, The Stout Institute owes its existence in Menomonie to the lumbering interest which, in 1889, brought James H. Stout to northwestern Wisconsin. Here Mr. Stout amassed a considerable fortune as one of the partners of the Knapp, Stout and Company, long recognized as one of the major lumbering companies of the northwest.

It was James H. Stout who had the vision and conceived the purpose and plan of organization of The Stout Institute. His success in the lumber industry made it possible for him at least partially to realize his dream before death interrupted his work and cut short a program which would have changed completely the future of the school, and would, without doubt, have left the school amply endowed.

The first building erected contained just two rooms, one given to manual training and the other to domestic economy, as homemaking work was then termed. The work immediately proved to be so popular that Mr. Stout erected, in 1893, a large building, costing in that day of extremely cheap construction

$100,000, and equipped it completely for carrying forward many lines of handiwork. This building served its purpose for only four years, when it was destroyed by fire. During the school year 1898-1899, a larger and better building was erected by Mr. Stout as a monument to his faith in the cause he espoused.

Prior to 1903, Mr. Stout's efforts were dedicated to the boys and girls of Menomonie, and all shop and laboratory work was carried forward under the administration of the public schools. In 1903, however, the character of the school was greatly changed and broadened in scope by the organization of The Stout Training School, and the dedication of its efforts to the training of teachers of manual and household arts.

At that time Lorenzo Dow Harvey, State Superintendent of Public Instruction, nationally recognized as an educational leader, was made Superintendent of Schools of Menomonie and President of The Stout Training School. Here began the development of new ideals in education and the breaking down of old practices.

In September, 1903, there were 25 men and women enrolled in the training school. The next year 48 registered, and in 1905, 98 reported. Three years later, in 1908, there were 197 students enrolled, and in 1913, ten years after this organization became effective, more than 500 students were in attendance. Early in 1908 another important change came when, through articles of incorporation, The Stout Training School became The Stout Institute. In the purposes enumerated in its charter could be seen the development of a greater school.

James H. Stout died in 1910. After his death, the school would not have survived except for the courageous leadership of President Harvey, who prevailed upon the state of Wisconsin to assume all responsibility for the financing of the school.

In 1911, The Stout Institute became a state school. Since that date, it has been administered by the Board of Trustees of The Stout Institute. Under these conditions, the school assumed new obligations, among which was to produce a suf-

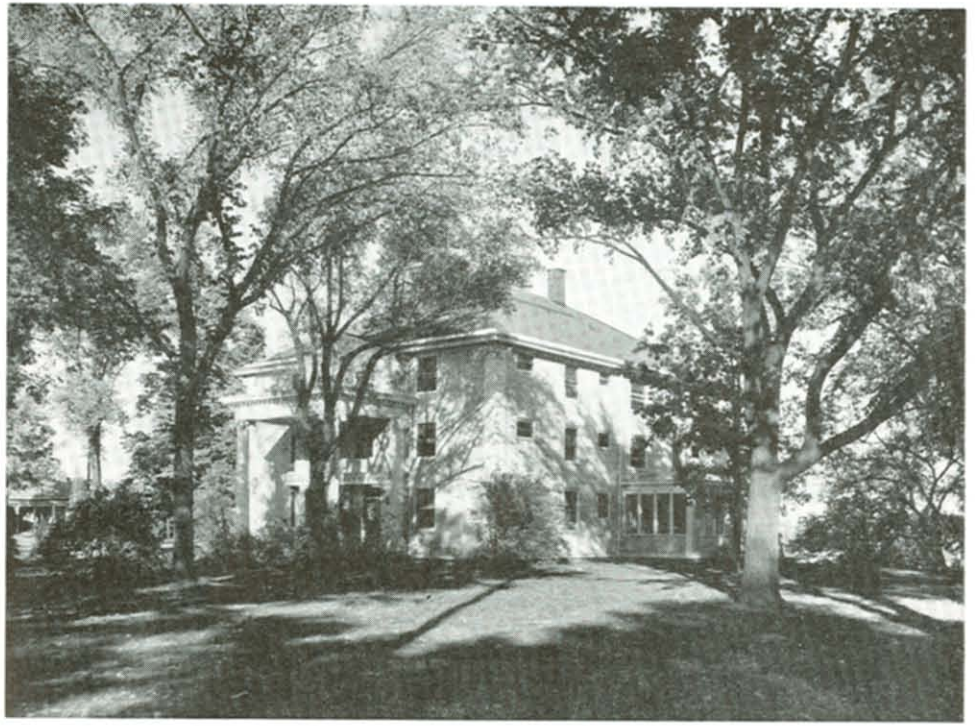
ficient supply of competent teachers of home economics and industrial education to meet the needs of the state. The Stout Institute was still a junior college. The demand for Stout Institute graduates increased so rapidly that a further extension of courses became imperative.

The larger high schools began to demand teachers with four years of college training and a college degree. In recognition of that fact the legislature, in 1917, extended the course to four years and authorized The Stout Institute to grant degrees. For several years, however, the school continued to grant the two-year diploma, because the demand for teachers trained at Stout far exceeded the supply of four-year graduates.

The 1925 catalog omitted the two-year course and set three years as the requirement for the diploma. Moreover, higher standards of preparation were required. With the beginning of the school year in September, 1926, all shorter courses were discontinued, and all freshman students were enrolled on the four-year basis.

Inspired by insistent constant demands made by the graduates of The Stout Institute, with the approval of the Board of Trustees, the administration prevailed upon the legislature of 1935 to authorize the granting of graduate degrees. The enrollment for this work during these years has indicated the desirability of this new program. The degree of Master of Science in industrial education, vocational education and home economics education is now being issued in increasing numbers.

While the greater part of the students come from Wisconsin, almost every state in the country is represented in the year's enrollment at The Stout Institute. Stout graduates are teaching in every state in the Union. They are teaching in Canada, the Canal Zone, Hawaii, Cuba, and the West Indies. The Stout Institute strives not for enrollment, but for superior accomplishment.



TAINTER ANNEX

MODERN DORMITORY FOR YOUNG WOMEN HAS AN ATTRACTIVE VIEW OVERLOOKING LAKE MENOMIN AND RECENTLY REMODELED. IT IS AN ATTRACTIVE COLLEGE HOME. TAINTER ANNEX ADJOINS TAINTER HALL AND EICHELBERGER HALL.

COLLEGE ASSOCIATION AFFILIATIONS

Soon after The Stout Institute restricted its work to a four-year curriculum, it was accepted by the North Central Association as a member of the teachers college group and two years later was taken into full college membership. Since the formation of the American Association of Teachers Colleges, The Stout Institute has maintained membership in that organization. The college is also a member of the American Council on Education.

BUILDINGS AND GROUNDS

Four large, thoroughly equipped buildings (the Home Economics Building, the Industrial Education Building, the Gymnasium, and the Trades Building) comprise the central plant. In addition there are three dormitories, a home management house, and an infirmary.

The grounds include spacious lawns for the women's dormitories, a practice field, tennis courts, and the Burton E. Nelson Athletic Field. During the fall of 1935, a shelter house was constructed, which includes dressing rooms and shower rooms for two teams. The administration plans, as the next project, a new field house or an extension to the present gymnasium. Recently the state purchased the site needed for this building. The institution represents an investment of more than one and one-half million dollars.

Library

A library that provides a wide range of up-to-date reference works in home economics and industrial education besides a large number of magazines and books for purely cultural reading is housed in the Home Economics Building.

Laboratories and Equipment

The shops for the teaching of industrial subjects are all well equipped and kept up-to-date. The Trades Building is

devoted exclusively to shops containing all needful equipment for elementary and advanced classes in carpentry, cabinet-making, general woodworking, auto mechanics, sheet metal, painting and finishing, architectural and machine drafting, and visual education. A modern industrial mechanics shop has just been added. It has provision for use of all types of visual education equipment. The Industrial Education Building contains shops completely equipped for work in general mechanics, foundry, printing, general metal, electrical work, and machine practice. A physics laboratory and shops for practice teaching are also housed here. Necessary lecture rooms for general subjects are provided throughout the building.

The laboratories for home economics instruction are among the best in the country. All located in the large home economics and administration building, they include units for textiles and arts, nutrition and foods, nursery school, homemaking, and sciences. Lecture and demonstration rooms are comfortable and commodious. Throughout, the equipment is up-to-date and adequate for all levels of work.

Auditorium

One of the wings of the Home Economics Building houses a large, modern auditorium with a seating capacity of 890. At least once each week an attractive program of an educational or entertainment nature is presented by nationally known speakers or entertainers. The large stage makes possible the appearance of large musical organizations, local and traveling, and provides excellent facilities for work in dramatics.

Dormitories for Women

Bertha Tainter Hall is furnished with all modern conveniences, and is well-lighted, heated, and ventilated. This building was thoroughly remodeled recently, and the interior was

completely modernized, redecorated, and largely refurnished.

Tainter Annex adjoining it has been remodeled and modernized throughout. More light and room space are provided. Old bathrooms were removed and new bathrooms installed. Another living room and a sun room were added. The gray stucco on the outside has been replaced by fireproof asbestos shingles which add greatly to the appearance of the building and materially reduce fire hazard.

The Mary Eichelberger Hall is a reconstruction of an imposing stone mansion built in 1890 by the Tainter family and later occupied by the Wilson family, two of the four families identified with the Knapp, Stout and Company referred to in the Historical Sketch of Stout in this catalog.

It has been named Eichelberger Hall because the building was paid for out of a $20,000 legacy provided for in the will of Mrs. Mary Eichelberger of Horicon, Wisconsin. The entire building, basement and three floors have been completely reconstructed. New walls, floors, plumbing, heating, lighting and furnishing, as well as a new roof, over insulation, were indicated and that work is now in progress.

This dormitory for women is on the same campus, bordering Lake Menomin, with Tainter Hall and the Annex. It has been planned to take care of twenty-four to forty women. The room charge here is $90 per year.

All nonresident freshman and sophomore women are required to live in the dormitories. All junior and senior women under twenty-five years of age are also expected to live in the dormitories, when accommodations are available.

Dormitory for Men

Lynwood Hall was built for the purpose for which it is used and is in every appointment adequate and complete.

Recently elaborate improvements have been made. These include the enlargement of living and recreational rooms,

EICHELBERGER HALL

NEWLY ACQUIRED BUILDING. THIS BUILDING WILL BE REMODELED AND READY FOR OCCUPANCY AS A THIRD WOMEN'S DORMITORY AT THE BEGINNING OF THE FALL TERM. IT IS IDEALLY LOCATED ON THE SOUTH END OF THE WOMEN'S CAMPUS.

sound proofing the building, installation of new bath and toilet facilities. Exterior improvements add materially to the appearance and attractiveness of the building.

Nonresident freshman and sophomore men are required to room at Lynwood Hall. No exception is made to this requirement.

Concerning all Dormitories

Room rent in dormitories is payable by semesters, in advance at the beginning of each semester. Board is payable four weeks in advance.

The charge for a room for each student for the school year of thirty-six weeks is $80.00 to $90.00, according to size and location of the room. These prices apply to all dormitories.

In Tainter Hall and Annex, the charge for meals and a definite amount of laundry work for each student is $5.75 per week. A laundry in connection with the women's dormitories provides service to students in those dormitories at a minimum charge. All Stout dining rooms are under the direct supervision of trained dietitians. Balanced meals are carefully planned with the thought in mind that the health of the students is of primary importance.

Rooms in dormitories will be available Sunday, September 7, 1941. Meals will be served beginning Monday noon, September 8, 1941.

All first year entrants and all transfer students must fill out an application form for a room and send it as early as possible to the Director of Dormitories at Tainter Hall. The necessary form is one of the several forms included in the enrollment papers. A room reservation fee is not required but all applicants for admission are held financially responsible for room rent unless the reservation is cancelled at least one week before the opening of the school year.

All rooms are assigned for the entire academic year. Each room is furnished with two single beds, with mattresses and pillows for same, dresser, study table, chairs, bookcases, and

rug. Sheets, pillowcases, and laundering of same are also supplied. The student must supply dresser scarf, couch cover, waste paper basket, towels, blankets or comfortables, and simple curtains which should be arranged for with roommate after assignment of room has been made.

Students are requested not to bring additional furniture, particularly floor lamps. A practical study lamp for the table, with rubber insulated cord and plug is permissible and desirable. All such lamps will have to be inspected by the school electrician before they are used. Radios are not permitted in students' rooms. A community radio is supplied. Additional furniture is neither necessary nor desired.

The Infirmary

The Stout Institute maintains an infirmary for the care of students, where every detail of health is carefully supervised. A resident registered nurse supervises the health of students throughout the college and is on duty at the infirmary. The nurse maintains regular office hours in her rooms in the Home Economics Building, where she can be consulted by students. A college physician is available for consultations. Students are given a medical examination annually.

A Student Health fee of two dollars and fifty cents per semester is paid by all students. This fee insures dispensary service, physical examinations and three days of hospital care without charge. After the third day a charge of one dollar a day will be made for meals. Students rooming in dormitories where meals are served will not be charged for meals while at the infirmary.

Any student who is too ill to attend classes should report at once to the school nurse. Students living in Menomonie shall have their parents or guardian notify the school nurse. Cases of severe illness or other serious situations that will enforce prolonged absence should be reported to the Dean of Home Economics or the Dean of Industrial Education.

Home Management House

A thoroughly modern and fully equipped Home Management House has replaced the old frame building which stood on the same site for more than sixty years. This new Home Management House is a brick veneer building, of ample size, containing all conveniences and accommodations needed in such a building. Recreation room, store room, and laundry are found in the basement. A large living room, dining room, kitchen, and director's living quarters are on the first floor. On the second floor are large, comfortable, well-lighted student rooms. The building is heated by an oil burning furnace, and the air is conditioned for moisture and temperature by modern apparatus.

The Tea Room

The Stout Tea Room offers an excellent opportunity for students and faculty members to meet and to entertain guests. Attractive, well balanced luncheons are planned, prepared, and served by Institutional Management students. The work is under the management of the director of the cafeteria. This tea room is also the scene of many special luncheons and dinner parties given by student organizations.

The Stout Cafeteria

The Stout Institute Cafeteria, located in the east end of the Home Economics Building, is for the use of students and faculty and their guests. At present several hundred may be accommodated for three meals daily. The equipment is complete and modern; prices are moderate; the service is adequate; the food is excellent. Students are obtaining meals for the week at from $4.00 to $5.00. All nonresident freshman men are required to take their meals in the Stout Cafeteria using meal tickets provided by the college. For the school year 1941-42 the cafeteria will open Monday noon, September 8, 1941.

HOME MANAGEMENT HOUSE

LOCATED A SHORT DISTANCE FROM THE HOME ECONOMICS BUILDING. SENIOR COLLEGE STUDENTS IN HOME ECONOMICS MUST SPEND SIX WEEKS IN RESIDENCE, ASSUMING UNDER FACULTY SUPERVISION, FULL CARE OF THE HOME.

Other Living Facilities

Accommodations for men and women not living in dormitories may be procured in the city at varying rates, depending upon location and quality of service. Rooms may be had as low as $2.00 per week per person, and table board may be obtained in private homes at $4.50 to $5.50.

ADMISSION TO COLLEGE

Students may enter at the beginning of either semester or the summer session.

Admission to the college may be secured:

1. By presenting a certificate of graduation from an accredited high school.
2. By submitting evidence of studies successfully pursued in another institution of higher learning.
3. By qualifying as an adult special student.

Prospective students may learn at any time of year by corresponding with the Registrar whether or not they have the necessary qualifications for admission and upon what basis they may be admitted. Students may enter The Stout Institute at the opening of either semester or of the summer session, but all credentials should be filed sufficiently in advance of the date chosen to permit the Registrar to pass upon them and to issue the proper letter of admission. Candidates for admission in September should have their credentials filed with the Registrar by the first of August. The credentials must in every case include a complete record of all previous secondary school and advanced work.

Persons who plan to enter Stout should fill out and file application for enrollment as early as possible. Blanks will be furnished promptly on request. This enrollment blank, together with the health certificate and certificate of vaccination, when filled out must be forwarded to the President before the beginning of the semester. It should be forwarded

LYNWOOD HALL
LYNWOOD HALL, A MODERN MEN'S DORMITORY, IS LOCATED ONE-HALF BLOCK FROM THE STOUT CAFETERIA. IT INCLUDES ATTRACTIVE RECENTLY ENLARGED RECREATION ROOMS IN THE BASEMENT. THE HALL IS AS FULLY FURNISHED AND EQUIPPED AS MOST FRATERNITY HOUSES.

early since the number admitted to beginning classes is limited.

All students are expected to register on general registration days. Late registration is not approved. In case of registration after the first week of school, a $5.00 fee will be charged. No registration after the second week will be accepted.

Entrance Requirements

Entrance requirements of The Stout Institute shall be interpreted as graduation from an approved high school or equivalent training. Not less than 15 units shall be accepted.

1. The following units shall be required of all:
   English ..... 3 units
   Mathematics ..... 1 unit
2. Two units are to be presented from one of the following:
   Foreign Language, History, Social Science, Science.
3. In addition to the units required under 1 and 2, a sufficient number of units to make a total of fifteen must be offered from Groups A and B. Not more than 5 units may be offered from Group B.

Group A	Group B
English and Speech	Agriculture
Foreign Language	Commercial Subjects
History and Social Science	Home Economics
Mathematics	Industrial Arts
Science	Mechanical Drawing
Advanced Applied Music and Art	Optional (2 units)

4. A high school graduate need not meet the above requirements if he is recommended by his high school principal and if he stands in the upper one-half of his class. But it is required that wherever mathematics is a prerequisite for successful work in a course, the high school deficiency must be made up if it exists, and for this the college will not hold itself responsible for providing facilities.

All first year entrants and all transfer students are required to take Freshman Examinations which are given during Registration Week. A two dollar fine will be imposed upon those who take the examinations at other than the scheduled time.

A supplementary physical examination is made of all first year students and an annual examination of all students is required. The examination is made by a consulting physician connected with the institution. The charge for this examination is included in the infirmary fee referred to elsewhere. These credentials, together with an approved statement of rooming arrangements, are required before the enrollment is considered complete.

Mature students who are deficient in entrance credentials may take entrance credential examinations while in attendance.

Transferred Credits

Students entering The Stout Institute who have had any work whatsoever in another institution of higher learning, regardless of whether or not they wish to receive credit for it, must submit complete credentials of both their high school and college work. All such transcripts and supplementary material should be sent as least six weeks preceding the opening of the session the student desires to enter.

Students whose transcripts of advanced standing show an average below C may be accepted on probation.

Graduate students who hold Bachelor's degrees from other institutions must spend one year in residence and meet the minimum requirements of their major in order to obtain the degree of Bachelor of Science from Stout.

A maximum of eight semester hours of modern foreign languages will be allowed as elective credit with a minimum of not less than four semester hours in one language.

Sixteen semester hours of approved courses done through extension or correspondence, not more than five semester

hours of which shall be correspondence credit, shall be the limit accepted by The Stout Institute for graduation requirements.

SPECIAL STUDENTS

All students taking work for credit toward degrees are regular students. The Administration urges very strongly that all students enter regular courses and take the work outlined for those courses, even though they may not be able to stay on for the time required to complete them. Students are given special classification only when age and preparation of the applicant, in the opinion of the President, makes such classification expedient and justifiable.

CREDITS, GRADE POINTS, AND ATTENDANCE

In order to receive a degree, the student must not only gain the required number of credits in the course which he is pursuing, but he must also attain a certain standard of scholarship. This standard is fixed by the grade point system, which requires for graduation as many grade points as credits. Grade points are apportioned as follows:

A	(94-100)	3 grade points per semester hour credit.
B	(86-93)	2 grade points per semester hour credit.
C	(78-85)	1 grade point per semester hour credit.
D	(70-77)	0 grade point per semester hour credit.

The maximum number of grade points that can be earned by a student graduating with 124 credits is 372; the minimum is 124. Students who graduate under the 128-hour curriculum must earn 128 grade points. It is evident that an average grade of C is necessary for graduation. Students who fall behind in the required number of points are ineligible for graduation.

In determining grade points for two-year diploma graduates of The Stout Institute who reentered after September, 1927, only such credits as are earned after that date are used in computing the number of grade points for such students. When computing grade points for students who enter with advanced credits, only those credits which are earned in The Stout Institute after September, 1927, are used in computation. In order to qualify for a degree, such transferred students must receive as many grade points as the number of semester hours required for obtaining the degree.

"Incompletes" are given only in cases in which the absence incurred has been due to situations over which neither the teacher nor student has any control. To secure an Incomplete, a student must have a passing grade in the course at the time of withdrawal.

Residence Requirements

The minimum residence requirement is thirty-two semester hours and thirty-two grade points to be earned in at least thirty-six weeks of attendance at Stout Institute. All students must earn final credits for graduation in residence. After September 1940, the last year of credit must be earned in residence at The Stout Institute.

Degrees

The Bachelor of Science degree is conferred upon all students completing curriculum requirements in the Division of Home Economics and in the Division of Industrial Education. These courses require four years of work beyond the high school. Upon completion of this work a diploma is issued, which by statute is made the basis for a life certificate after two years of successful teaching in Wisconsin. This life certificate legally qualifies the holder to teach in the public schools of the state the subjects in which training has been taken. The license is issued by the Wisconsin State Department of Public Instruction.

Fully registered students at The Stout Institute, in the Division of Home Economics, must complete one hundred and twenty-four semester hours and earn one hundred and twenty-four grade points, plus the requirements in physical education. Students in the Division of Industrial Education must complete one hundred and twenty-eight semester hours and earn one hundred and twenty-eight grade points, plus the requirements in physical education.

EXPENSE ESTIMATES

Estimates on Usual Expenses Incurred by a Student for a Regular Session of Thirty-Six Weeks

	Women	Men
Library Fee (Semester $4.50)	$ 9.00	$ 9.00
Physical Education Fee (Semester $2.00)	4.00	4.00
Student Health Fee (Semester $2.50)	5.00	5.00
S.S.A. Membership	12.50	12.50
Room Average Dormitory Rate (Rooms out in town vary according to desirability of room and location)	80.00	80.00
Board—Dormitory rate for women. (Rates out in town vary somewhat)	198.00	216.00
Laundry	18.00	25.00
Laboratory Fees for Women (average)	25.00	
Material for Classes for Women (average)	20.00	
Shop and Laboratory Fees for Men (average)		30.00
Drawing Instruments, shop clothes, small tools, etc.		27.50
	$371.50	$409.00
Tuition for Wisconsin Residents	$ 20.00	$ 20.00
Tuition for Nonresidents	124.00	124.00
Estimated Expenses for Residents	391.50	429.00
Estimated Expenses for Nonresidents	495.00	533.00

The fact that incidental expenses, amusements, traveling expenses, postage, clothing, personal supplies, etc., are not included in the above must be taken into consideration.

Fees for individual courses are listed in The Stout Handbook.

Transfer of Records

Students wishing to transfer from The Stout Institute to another institution should request the Registrar to send a transcript of record and letter of dismissal, giving notice of at least one week. One transcript of record is furnished each student without charge; a fee of one dollar is charged for each additional transcript. This fee must be sent with the request.

Tuition, Regular Session

Tuition for residents of Wisconsin is twenty dollars for the school year. The tuition charge for nonresidents and the definition of nonresidents are covered in the following quotation from the Wisconsin Statutes:

"Any student attending The Stout Institute who shall not have been a resident of the state for one year next preceding his first admission thereto shall pay a tuition fee of one hundred twenty-four dollars for the school year and a proportionate amount for attendance at the summer session."

Tuition is payable in advance each semester.

Shop and Laboratory Fees

Fees are charged for shop and laboratory courses to cover the per capita cost of materials used by students in these courses. In addition to the shop and laboratory fees, students are required to pay for any breakage or damage to buildings for which they are responsible. Fees are payable registration day at the beginning of each semester and summer session. The fee receipt is to be retained by the student to gain admittance to classes. A charge is made for duplicate receipts.

Library Fees

A library fee of $4.50 is payable by each student at the beginning of each semester. For this fee all necessary text-

books are furnished from the loan textbook library without any extra charge to students. The reference library is supplied with standard books needed to supplement textbooks in different subjects.

The reading room is supplied with daily and weekly newspapers, educational, literary, and technical periodicals, adapted to the needs of the students and available for their use.

In addition to The Stout Institute library, students have access to the Memorial Free Library, one block from The Stout Institute main buildings. The combined facilities of the two libraries make available 32,000 volumes, exculsive of public documents.

Incidental Fees

Special Examination Fee (taken in special cases only)....$2.00
Fees for Transcripts. A student is entitled to one transcript of his credits. Each additional copy is issued at the rate of 1.00
Lock Deposit $1.00 — Refund ..... .75

SCHOLARSHIPS AND AWARDS

In 1921, Mrs. Mary J. Eichelberger of Horicon, Wisconsin, willed to The Stout Institute twenty thousand dollars in preferred stocks and cash. This legacy came to the institution without stipulation as to the purpose or use to which it was to be put. For several years no use was made of this fund.

In 1924 the Administration recommended that the earnings from the principal and such part of the principal as might be necessary should be used in making loans to worthy and capable students when in need. No part of the principal has been used. The fund has, through dividends and interest additions, increased to a considerable sum. Ten thousand dollars is now being used by students in attendance or is being repaid by students who have graduated.

Certain requirements are set up to govern the committee in passing upon applications for loans. There must be evidence of real need. Freshmen are not accorded the use of this money. Loans are made only to students of good moral character, high scholarship, and excellent promise as teachers.

SELF-SUPPORT AND STUDENT AID

While there are opportunities for a student attending Stout to earn a part of his expenses, it should be borne in mind that the courses are designed to require the whole of his time and effort and that the amount of outside work he will be able to do cannot be great. For this reason students whose funds are insufficient to meet their expenses for at least the first year, are not encouraged to enter college. Students working to earn part of their expenses are expected to carry a reduced program.

As far as possible, students are employed for extra work about the library, laboratories, and in the cafeteria, and as janitors. Some opportunties offer themselves outside of school agencies. A great deal depends, of course, upon the ability and energy of the individual, and his willingness to do any kind of work. The best places are usually obtained by those who have been in college for some time.

Stout does not guarantee employment. It does, however, make a special effort through its college employment bureau to locate students needing work as a means of paying expenses.

The school operates a Student Loan Fund and makes available to needy and deserving students aid within the limits of the fund. Loans are not made, however, to freshmen students and are made only to those students whose school records recommend them to the Committee on Student Loans. Money from this fund is loaned at five per cent, and the loans are made returnable at the latest within one year after the student leaves school.

FEE FOR SCHOOL ACTIVITIES

The Stout Institute offers a wide range of student activities. Besides the regular classes in physical education for men and women, Stout is represented each year by strong football, basketball, baseball, and track teams. Flourishing glee clubs, one for the men and one for the women, have been maintained for a number of years. A band and an orchestra add greatly to the life of the school. All musical organizations are under the supervision of a trained and capable director. Dramatics is centered in the organization known as the Manual Arts Players. A permanent Lyceum committee is maintained, operating each year a five or six number course of the very best talent available. Weekly assemblies bring to the students many excellent lectures, entertainers, musicians, artists and musical organizations of outstanding ability. The college paper, The Stoutonia, is published each Friday. The Tower, the college yearbook, is also a product of student activities at Stout. Numerous social affairs take place throughout the year in the school gymnasium.

All of these organizations through contests, concerts, plays, programs, contribute to the social life of the school. The management of admission, booking, and relationship with various student activities is through the Stout Student Association, the officers of which are elected each spring at a regular all-school election.

The membership charge, $12.50 per year, is payable by all students, $6.25 at the beginning of each semester. This membership gives every student of the college admission to all athletic events including football, basketball, and baseball, all concerts by student musical organizations including the Band, Orchestra, Men's Glee Club, and Women's Glee Club, productions of the Manual Arts Players, all lyceum and assembly programs and other entertainments under the supervision of the student association, educational and other lectures, all

student dances given under the auspices of the student association, and the subscription to the student weekly newspaper, The Stoutonia and the Tower, the college annual. The Stout Student Association membership has eliminated the necessity for the many former student drives for the financial support of the usual college activities. The only exceptions are the religious and social organizations. The association has added much to the social atmosphere of the school and has systematized and made harmonious all school activities.

REFUNDS

Students who are compelled to withdraw from the college by reason of illness, not due to poor physical conditions or ill health existing before entering, are entitled to a refund of tuition from the date when notice of such withdrawal is received to the end of the semester.

Students boarding in the dormitories are also entitled to a refund of whatever amount has been advanced for board beyond the date when notice of withdrawal is received.

Refund for advance payment of room rent in the dormitories is allowed from the date when the room is again rented. Effort is made to get an occupant at the earliest date possible.

As books and supplies for which fees are charged have to be bought in advance in quantities necessary to supply the entire enrollment, no refund of fees is made in any case.

REGULAR SESSION ENROLLING

The 1941-42 school year opens Monday, September 8, 1941, the first semester closing January 23, 1942. The second semester opens January 26, 1942, and closes May 29, 1942.

Summer Session 1941

The thirty-sixth annual summer session will be held during the summer, 1941. During the summer session, classes are held five days per week affording opportunity for week-end recreational use of Lake Menomin, the Red Cedar River, and the northern Wisconsin "Land o' Lakes" country.

Summer session classes are designed to meet the needs of various groups of people. Former students and graduates of the diploma course have excellent opportunity for taking advanced work for credits toward their degree. Supervisors and teachers of industrial education or home economics can strengthen their work in techniques or in the field of education. All persons interested in specific studies related to work in industrial or homemaking courses will find much of interest in the summer session schedule. The Stout Institute has been designated by the State Board of Vocational and Adult Education of Wisconsin for the preparation of teachers for vocational schools. Special provision is made in the summer session for meeting professional requirements resulting from new federal and state legislation.

Special lecturers are secured for the summer session. As a rule, these lecturers spend not less than two days on the campus, conducting special conferences, as well as presenting general lectures. It has been the policy of the college to secure special speakers peculiarly well qualified to handle the larger social problems of the present time with special emphasis upon the relationships which home economics and industrial education teachers have in the solution of these problems.

Credit granted for courses taken during the six weeks session will be in the same amounts as credit granted for the same courses during the regular session. This is made possible through the assignment of increased time per day, per subject, and an increased number of meetings per week. In some

instances, courses are offered in half credit amounts, it being possible to take one-half of the course in one summer, followed by the other half the following summer.

During the last several summer sessions, there has been a very marked trend toward use of the summer sessions as an extension opportunity for teachers in service. A large portion of the summer session enrollment has been made up of teachers who come from teaching positions for the summer and return to their positions in the fall.

Teachers whose work remaining for the Bachelor's degree is in amount too large to be conveniently completed through summer sessions are advised to make use of semester leaves of absence to permit attendance for one or more semesters during the regular session. In preparing the summer program on the six weeks basis, certain courses will be offered every other year by using alternation of courses. Opportunity is offered in various courses to meet the rapidly changing requirements in teaching positions.

The April issue of The Stout Institute bulletin is the annual summer session bulletin. This contains general information on the summer session, description of courses, and the summer session class schedule, including both undergraduate and graduate work. It will be sent on request.

Graduate Program

The Wisconsin Legislature of 1935 granted The Stout Institute the authority to inaugurate a fifth year of work, on the graduate basis, leading to the degree of Master of Science, with majors in home economics education and industrial education. In 1939 additional legistation made provision for undergraduate and graduate majors in vocational education. The initial offering of graduate work was made in the 1935 summer session. For the present, the graduate work is offered in the summer session only. The

summer session bulletin, issued each year in April, carries detailed information on courses available on both the undergraduate and graduate levels the following summer.

General Plan

The individual graduate student will work with his adviser in his major field in a formulation of a tentative distribution of work. The approval of the adviser and of the graduate committee will be necessary. Thirty semester hours of work will constitute the credit requirements. The individual student's plan for his work will be arranged tentatively during the first summer session in which the student attends on a graduate basis. Work for the Master's degree must be completed within six years. Requests for extensions will be given consideration by the committee. The minimum length of time spent for graduate work shall be one year. Not more than six semester hours of credit may be transferred from other institutions.

Admission

Students who hold the degree of Bachelor of Science from The Stout Institute, or its equivalent, may take graduate courses. Important considerations of the graduate committee in granting approval on admission applications will be: The applicant's having earned an approximate grade point average of 1.5 as an undergraduate; the applicant's having had satisfactory practical or teaching experience. Students whose candidacy has not been clearly established will be accepted on probation. Credit toward the Master's degree will not apply until the student has been accepted as a candidate for the degree. Students whose undergraduate work was not taken at The Stout Institute should have their transcripts sent to the Registrar not less than one month prior to the opening of the summer session.

The work leading to the Master's degree is available in majors in home economics education, industrial education,

and vocational education. For those who wish to become candidates for the degree of Master of Science with a major in Vocational Education, eligibility will be based upon a Bachelor's degree from an accredited college plus at least one year or equivalent of full-time, successful, certified vocational teaching experience.

Fees

The regular college fees, Library Fee $2.00, and Activities Fee, $2.00, will be paid by all students. All graduate students pay a graduation tuition of $20.00. Graduate students who are nonresidents of Wisconsin pay also the nonresident tuition of $21.00. Undergraduate students who are residents of Wisconsin pay a tuition of $10.00. Undergraduate students who are nonresidents of Wisconsin pay a tuition of $21.00.

Distribution of Courses in Graduate Sequence

Courses available for graduate work are classified in three groups. It is planned to expand the range of offerings in each group in successive summer sessions. Special graduate conference schedules are maintained each summer to give graduate students specific aid in planning their sequences and selecting courses.

The professional objectives of the individual student and the general requirements for graduate work will be included in the considerations used as a basis in defining the ultimate program. In the arrangement of graduate courses in the three groups, the general purpose is as follows:

Group I.

Minimum requirement—four to six hours. (Four semester hours if any in this group have been taken as undergraduate credit.) Includes basic professional courses.

Group II.

Minimum requirement—six semester hours selected from this group or courses remaining in Group I. Primarily an elective group with selections determined by the student's general and professional interests.

Group III.

Minimum requirement — fifteen semester hours.

Is for the purpose of developing sequences of concentration in the direction of the professional advance of the individual student. Selections of courses to develop sequences in this group will consider the individual's professional progress to date, present location, and expanding responsibilities. As the plan of concentration in this group is developed through conferences, it will constitute a significant control in the selection of the investigation title.

The maximum credit allowed for the investigation will be six semester hours. The approval of the investigation selection will be made with the guidance and approval of the graduate committee and the dean of the division in which the student is majoring.

Credit requirements by groups are indicated in minimums. The maximum credit taken in each group will be determined by the fields of emphasis and concentration in the individual student's plan. Complete information on the graduate courses to be offered in specific summer session schedules is included annually in the summer session bulletin. Those interested in complete information on the graduate work should secure the summer session bulletin issued each year in April.

Courses of Study 1941-42

Industrial Education

The four-year curriculum in the Division of Industrial Education at The Stout Institute leads to the degree of Bachelor of Science with a major in Industrial Education or Vocational Education and the special state license.

Supplementary licenses to teach additional subjects are based on the electives selected. The general purpose of this curriculum is to provide a balanced educational development. This balanced development is brought about through closely integrated courses in sequenced progression within the several subject groups in technical work, in English, social science, science, mathematics, and education. The specific purpose in the curriculum is to prepare the students for the requirements of the industrial education teaching and supervisory positions in elementary schools, junior high schools, senior high schools, and vocational schools. Through controlled choices in the technical and educational sequences, provision is made for licensing or certificating requirements of state departments of education. Through carefully balanced sequenced progression in academic courses, a basic preparation is provided for continued professional study on a graduate level.

The first and second years are general preparation. Students are required to take the range of work indicated in these years in the technical and other sequences. The basic exploratory range of industrial work required in the first year is supplemented by controlled choices in the second year which continue the development of a broad general foundation in this sequence.

For those students who are not journeymen or who have less than four years of apprenticeship and three years of journeyman experience in the trade, the major in industrial education is open to them. For those who have the trade experience and who are eligible for certification as vocational

teachers, either the major in industrial educaton or the major in vocational trade and industrial education may be selected.

The tabulated material immediately following indicates the curriculum definitions for the major in industrial education. Following this information is the statement indicating the modifications in the industrial education curriculum for those who are eligible for the curriculum with the vocational trade and industrial major.

CURRICULUM IN INDUSTRIAL EDUCATION

FIRST YEAR

			Sem. Hrs.
*English	102a-b	English Composition	6
*Mathematics	207-211	Algebra I-II	4
Social Science	103	American History	2
Social Science	105	American Government	2
English	106	Speech I	2
Physical Education	127	Shop, Drawing, Design	16
Industrial Education	(See List)	Physical Education	0

*Opportunity will be provided for remedial work for those who have deficiencies.

The 16 hours of shop work and drawing in the first year consist of eight courses in the following:

Elements of Machine Woodwork I
Elements of Hand Woodwork I
Sheet Metal I
Electrical Work I
Freehand Drawing I
Machine Shop I
Printing I
Elements of Mechanical Drawing I

The shop work and drawing in the first year is required of all students. Recognition of incidental experiences by the student in the field of work covered by any of the courses in this group is made individually. For those entering with specific journeyman experience in trades, the freshman schedule is modified.

SECOND YEAR

			Sem. Hrs.
English	346	Expository Writing	2
English	223	Speech II	2
Mathematics	313	Trigonometry	3
Education	203	Plans & Instructional Material	2
Education	357b	Administration & Organization I	2
Social Science	201	Economics I	3
Chemistry	115	Chemistry I	5
Physical Education	101	Hygiene	1
Industrial Education	(See List)	Shop, Drawing, Design	12

The selection of technical courses in shop work, drawing and design in the second, third, and fourth years, is based upon continuous survey studies. The choices in the second year continue the exploratory range begun in the first year and begin the identification of fields of concentration in the technical work. The selections of technical courses in the third and fourth years are based upon the experiences of the student in the first and second years, a detailed study of the trends in educational requirements as evidenced in the distribution in calls for teachers, and continuous survey studies of technological, structural, and functional change in modern industry. The results of these studies are used in teacher training provision for industrial education instruction in the public schools for general education, consumer preparation, and producer preparation. Selections of courses are combinations made from the following:

Carpentry I, II, III
Cabinetmaking I, II, III
Patternmaking I, II, III
Woodturning I
Furniture Upholstery I, II
General Woodwork I, II, III
Painting and Decorating I, II
General Mechanics I, II
Home Craft and Repair Work
Industrial Mechanics I
Auto Mechanics I, II, III, IV
Foundry I, II, III
General Metal I, II
Oxy-acetylene and Electric Welding
Sheet Metal II, III, IV
Machine Shop II, III, IV
Architectural Drawing I, II, III, IV, V
Freehand Drawing II
Machine Drawing I, II, III, IV
General Drawing I, II
Mechanical Drawing II
Printing II, III, IV, V, VI, VII
Masonry I, II
General Building Construction I
House Furnishing I
Electrical II, III

Those who wish technical courses in shopwork, drawing, or design for preparation for technical or junior executive positions in industry will find selections from the technical courses particularly applicable.

THIRD YEAR

English	216	Survey of English Literature	2
Physics	421	Physics I	5
Social Science	301	Economic History of the U. S.	3
Education	357a	Administration and Organization II	2
Education	222	Principles of Secondary Education	2
Education	209	Psychology	4
Education	408a	Observation and Methods	2

Education	408c	Student Teaching	2
General Electives			4
Industrial Education	(See List)	Shop, Drawing, Design	6

FOURTH YEAR

Social Science	414	Labor Movements and Problems	3
Additional Science			3
General Electives			6
Education Electives			8
Education	408c	Student Teaching	2
Industrial Education	(See List)	Shop, Drawing, Design	10

Electives

Supplementary licenses to teach subjects in addition to industrial subjects are based on electives selected. In addition to the major in industrial education, students are required to arrange their selections of electives to complete one academic minor and are advised to complete a second minor. Fifteen semester hours of work in a given subject matter field constitutes a minor.

Education Electives

Visual Education	2
*Vocational Guidance	2
Statistics	2
Educational Measurements	2
Adolescent Psychology	2
Theory and Organization of the General Shop	2
Social Education	2
*The Part-Time School	2
*Teaching Trade and Industrial Subjects in the Part-Time School	2

(*See Wisconsin State Board of Vocational Education classification requirements.)

General Electives

English Minor

Students desiring to complete an English minor should select courses from the following group in sufficient amount to complete fifteen semester hours in English, counting English courses included in the required groups.

Fiction	2
Drama	2
Poetry	2
Play Production	2

History and Social Science Minor

Students desiring to complete a social science minor should select courses from the following group in sufficient amount to complete fifteen semester hours in social science, counting social science courses included in the required groups.

Principles of Sociology	3
American Politics	2-3
Modern History	3
Recent U. S. History	3

Social Problems	2
Economics II	2-3
Contemporary Civilization	3

Science Minor

Students desiring to complete a science minor should select courses from the following group in sufficient amount to complete fifteen semester hours in science, counting science courses included in the required groups.

Physics II	3
Physics III	3
Chemistry III (Chemistry of materials)	3
Organic Chemistry	4
Biology	3
Bacteriology	3
Physiology	3

Mathematics Minor

Students desiring to complete a mathematics minor should select courses from the following group in sufficient amount to complete fifteen semester hours in mathematics, counting mathematics courses included in the required groups.

College Geometry	2
Analytic Geometry	2
Calculus	4

Music

A maximum of two semester hours of music may be included in the academic electives to count toward graduation requirements.

Solfeggio	1
Harmony Ia	1
Harmony Ib	1
Harmonic Analysis	1
Theory	1
Conducting	1
Men's Glee Club	1
Band	1
Orchestra	1

Coaching

Technique of Coaching Football	1½
Technique of Coaching Basket Ball	1½

COOPERATIVE WORK

An expanding program of opportunity for cooperative work for students in the Division of Industrial Education is being developed. This work is of two types, teaching and shop experience. In the supervised teaching which all students must take in the professional group opportunity is offered at The Stout Institute for such teaching in grades 5 to 12 in the Menomonie Public Schools and in the day and evening classes of the Me-

nomonie Vocational School. Through special arrangements teaching experience in certain other types of schools outside of Menomonie is available for a limited number of students. Through these opportunities, in addition to those on the campus, all types of teaching positions open to Stout graduates are available for supervised teaching during the training period.

All students in the Division of Industrial Education select certain major and minor concentrations of work in shop work and drawing. Opportunity for advanced students to spend some time in certain selected industries securing practical production experience is available. The scope of such shop experience and the kinds and types are being constantly expanded. During the school year 1941-42, such work will be available for students majoring in printing, woodworking, and possibly in certain other lines if conditions permit. The purpose of such work is to give the students modern shop experience in the industry in those phases of work which are not completely represented on the campus. A major is provided for journeymen desiring teacher training in preparation for entering teaching in vocational schools.

VOCATIONAL TRADE AND INDUSTRIAL EDUCATION MAJOR

Students interested in trade and industrial education teaching and who wish to select the vocational major, must be eligible for vocational teaching certification upon graduation. Ordinarily this vocational certification will be based on four years of apprenticeship and three years of journeyman experience or the equivalent thereof in terms of occupational definition. Students who are not eligible for vocational certification upon graduation will not be eligible for the curriculum leading to the vocational major.

The proportioning and distribution of academic, education and technical courses (shop, drawing and design) will be similar to that in the industrial education curriculum. In the

education sequence the amount of credit will be the same as in the industrial education curriculum. The vocational education certification courses will be required. Where necessary these courses will be used in substitution for courses now in the education sequence. These courses referred to as certification courses are the following:

The Part Time School
Teaching Trade and Industrial Subjects in the Part Time School
Problems in Teaching Trade and Industrial Subjects in the Part Time School
Vocational Guidance
Psychology

Trade experience credit examinations will be arranged to permit candidates for the undergraduate trade and industrial vocational major to earn through examination up to a maximum of twenty-four semester hours of credit in the total required for the degree of Bachelor of Science. This credit will be available in six semester hour amounts at certain stated periods in the student's progress through the other credits earned through residence work. In the schedule listed below the plan and the rate at which the twenty-four semester hours of trade examination credit become available is indicated.

Trade and Industrial Education Vocational Major (128 Semester Hours)

When 32 Sem. Hrs. residence completed	6 Sem. Hrs. Credit on trade experience examination released
When 32 (additional)	6 (additional)
When 32 (additional)	6 (additional)
When 8 (additional)	6 (additional)
104	24
	128

The credit and grade point requirements for the residence work will be the same as those for the industrial major. For graduation it will be necessary for the student to have as many grade points as semester hours of residence credit.

In conducting the examinations based on trade experience, use will be made of advisory committees to assist The Stout Institute in the formulation and conducting of examinations. These advisory committees will include representatives of the

State Board of Vocational and Adult Education, employers in the trade in which the candidate is being examined, employees in the same trade, and the teacher training committee of the Wisconsin Vocational Directors Association. The examinations will be conducted at The Stout Institute and will include oral, written and performance sections. In the field conferences in connection with the preparation and development of these examinations, The Stout Institute will have the assistance of the State Board of Vocational and Adult Education. In the conducting of these examinations, the major portion of the written and performance parts of the examination will be completed before the committee meets at The Stout Institute. At the time of the oral examination, the results of the written and performance portions of the examination will be checked. The candidate will be required to meet a reasonable fee charge for the examination, such fee to be used in meeting the expenses incurred in connection with the examination.

The work outlined for the curriculum for the vocational major is closely articulated with classification requirements of the Wisconsin State Board of Vocational and Adult Education.

For the purpose of measuring the attainment and the progress of the part-time schools of the state the Wisconsin State Board of Vocational and Adult Education, with the aid of the local directors, has set up certain standards of preparation and experience for each phase of part-time school teaching and is classifying part-time school teachers on the basis of these standards.

WISCONSIN STATE BOARD OF VOCATIONAL AND ADULT EDUCATION CLASSIFICATION REQUIREMENTS

Teachers of Trade and Industrial Subjects
Junior Classification

Junior Classification is granted to and held by

I. All teachers of trade and industrial subjects employed in the part-time schools of Wisconsin prior to January 1, 1926, who

(a) Are not yet qualified to hold a higher classification.

(b) If not already with a record of successful experience in the vocation taught for at least three years beyond the completion of apprenticeship, or the equivalent experience, spend one summer, or the equivalent, during each three-year period in practical work in the trade or occupation indicated until such record shall total three full years.

(c) Have agreed to and actually do spend one summer, or the equivalent, during each three-year period in professional improvement along the lines laid down for securing Senior A Classification and approved by the local board of vocational education and the State Board of Vocational and Adult Education. At least six credits must be earned over each three-year period. The following courses must be taken first:

1. The Part-Time School ..... 2 sem. hrs.
2. Teaching Trade and Industrial Subjects in the Part-Time School ..... 2 sem. hrs.

Note: Three-year periods mentioned above are those ending as of August 31, 1938 - 1941 - etc.

II. All teachers of trade and industrial subjects employed in the part-time schools of Wisconsin on or after January 1, 1926, who

(a) Are not yet qualified to hold a higher classification.

(b) If not already with a record of successful experience in the vocation taught for at least three years beyond the completion of apprenticeship, or the equivalent experience; or have had successful experience in the vocation taught for at least one and one-half years beyond the completion of apprenticeship, or the equivalent experience, and have agreed to and actually do spend one summer, or the equivalent, during each two-year period of practical work in the trade or occupation indicated, until such record shall total three full years.

(c) Have agreed to and actually do spend one summer, or the equivalent, during each two-year period in professional improvement along the lines laid down for securing Senior A Classification and approved by the local board of vocational

education and the State Board of Vocational and Adult Education. At least six credits must be earned over each two-year period. The following courses must be taken first:

1. The Part-Time School ..... 2 sem. hrs.
2. Teaching Trade and Industrial Subjects in the Part-Time School ..... 2 sem. hrs.

Note: Two-year periods mentioned above are those ending with the second August 31st after the teacher enters upon his work in the part-time school and all subsequent two-year periods.

Senior B Classificatcn

Senior B Classification is granted to all teachers of trade and industrial subjects employed in the part-time schools of Wisconsin prior to January 1, 1926, who:

(a) Are not yet qualified to hold Senior Classification.

(b) Have completed five years of successful teaching of the trade and industrial subject indicated in the part-time schools of Wisconsin.

(c) Have completed one summer, or the equivalent, in professional improvement. At least six credits must be earned in courses approved by the local board of vocational education and the State Board of Vocational and Adult Education. The following courses must be taken first:

1. The Part-Time School ..... 2 sem. hrs.
2. Teaching Trade and Industrial Subjects in the Part-Time School ..... 2 sem. hrs.

Senior B Classification will be extended as long as the possessor

(a) Teaches successfully in the part-time schools of Wisconsin the trade and industrial subject indicated.

(b) If not already with a record of successful experience in the vocation taught for at least three years beyond the completion of apprenticeship, or the equivalent experience, spends one summer, or the equivalent, during each three-year period in practical work in the trade or occupation indicated until such record shall total three full years.

(c) Has agreed to and actually does spend one summer, or the equivalent, during each three-year period in professional improvement along the lines laid down for securing Senior A

Classification and approved by the local board of vocational education and the State Board of Vocational and Adult Education. At least six credits must be earned over each three-year period. The following courses must be taken first:

1. The Part-Time School ..... 2 sem. hrs.
2. Teaching Trade and Industrial Subjects in the Part-Time School ..... 2 sem. hrs.

Note: Three-year periods mentioned above are those ending as of August 31st, 1938 - 1941 - 1944 - etc.

Senior A Classification

Senior A Classification is granted to and held by all teachers of trade and industrial subjects who meet the following requirements:

(a) Successful experience in the vocation taught for at least three years beyond the completion of apprenticeship, or the equivalent experience.

(b) Successful teaching experience of the trade and industrial subject indicated for not less than three years in the part-time school; one of these three years must be in Wisconsin.

(c) Completion of two years of college work in an approved teacher training institution, or the equivalent training.

Note: Time spent by a person without practical experience in a trade or technical school learning elementary processes, if applied on the apprenticeship period mentioned above, cannot be counted here. This two years of school training is to be in addition to the learning of the elementary trade or industrial processes.

(d) Completion of the following courses, which may be included in the two years of college training required under (c) above, or the equivalent specific training.

1. The Part-Time School ..... 2 sem. hrs.
2. Teaching Trade and Industrial Subjects in the Part-Time School ..... 2 sem. hrs.
3. Educational Psychology ..... 2 sem. hrs.
4. Vocational Guidance ..... 2 sem. hrs.
*5. Problems in Teaching Trade and Individual Subjects in the Part-Time School ..... 2 sem. hrs.
6. Elementary Economics ..... 4 sem. hrs.
7. Social-economic Electives ..... 4 sem. hrs.

*This course cannot be taken for classification credit until the teacher has a record of three years experience in the part-time school.

Unclassified

All teachers of trade and industrial subjects who do not have the qualifications for any of the ranks of classification as herein set up shall be designated as Unclassified.

Note: Four credits of graduate work done by a candidate for a higher degree is accepted in lieu of the six-credit total required throughout these standards.

Home Economics

The study of home economics is planned to contribute to the accepted viewpoint that education should be directed toward a more functional program, which will help individuals to understand the wide variety of responsibilities, demands and opportunities encountered in modern life. At the college level such a curriculum should have as its major purpose the centering of its activities about the home and family, so that the student will become sensitized to the social value and place of the home and family. In order to accomplish this a wide range of work in fields of general social interests and in fields of arts and sciences closely related to problems of family life should be offered.

The curriculum in home economics at The Stout Institute has been developed with the idea that real learning is more than fact acquisition and that the student gains most from her education through self-activity in the study of her own problems as related to family and community life. In establishing the curriculum, cooperative group thinking of faculty and students has been used to discover the various areas of student needs in this field and to arrange the ways of establishing and achieving desired goals in these areas. In each of the four years one particular area has been chosen as the basis for the unified courses offered. The area of personal development is the center of interest for the freshman year, that of family relationships the determining factor for the sophomore year, social-civic relations for the junior year, and professional relations for the senior year of work. Although the cumulative development of each year relates more to the one area than to the others, giving a unity of experiences, there is also emphasized the interdependence of all areas. Even though the problems in each area are constant, the experiences through which the student attacks her problems vary with circumstances and needs of the particular person. Individual instruction has come to mean more than a method of instruction. It is also a point of view which would make all phases of the college program con-

tribute to the satisfaction of the individual student's needs. While the curriculum pattern for the first two years is common to all students in the Division of Home Economics, there is considerable opportunity for the adjustment of group instruction to meet these individual needs. Later, through a choice of electives, the students may select combinations of courses to conform to special interests. Closer inter-relations with the various types of work in the division have been accomplished as a result.

The curricular offerings in the Division of Home Economics are planned to meet student needs in family and community living and to offer a worthwhile training in the many professional fields open to home economists. Types of positions which graduates of this school fill are those in the teaching field, hospital dietetics, institutional management, commercial demonstration work, service with the Farm Security Administration and Home Demonstration service.

CURRICULUM IN HOME ECONOMICS

The curriculum in the Division of Home Economics meets the requirements of 124 semester hours for the degree of Bachelor of Science in Home Economics Education and also permits the meeting of requirements for teaching licenses, and those of the American Dietetics Association for dietetics and institutional employment.

Students enrolled in this division of the college must complete a major of 40 semester hours in home economics, and two academic minors of 15 semester hours each. Reasonable modification of requirements in relation to student needs and interests may be recommended to the Dean of the Division of Home Economics for approval.

First Year

	Sem. Hrs.
*English 102a-b, 106	8
Biological Science 122, 214	6
Social Science 103, 105	4
Unified Courses	14
Arts 106a-b, 220	
Home Economics 102-a, 112, 114, 116	
Physical Education 128	0

*Opportunity will be provided for remedial work for students with English deficiencies.

Second Year

English 346, 216	4
Chemistry 115, 208	9
Social Science 201, Home Economics 317	5
Unified Courses	14
Art 206, 334	
Home Economics 212, 218, 226, 230	
Physical Education 228	0

Third Year

(1) Major—Home Economics Teaching

Social Science 309, 326	6
Home Economics 403, 424	6
Education 209, 320, 408a	9
Electives	
Home Economics	5-8
Academic, Education, Related Arts	3-6

(2) Major—Dietetics and Institutional Management

Social Sciences 309, 326	6
Chemistry 322	3
Home Economics 310, 300	3
Bacteriology 206	3
Education 209, 320	6
Electives	
Home Economics	3-9
Academic	3-6

(3) Major—General Home Economics

Social Science 309	3
Home Economics 424	3
Education 209	4
Bacteriology 206	3
Electives	
Home Economics	8-12
Academic, Related Arts	4-8

Fourth Year

(1) Major—Home Economics Teaching

Education 222, 410, 408b 7

Electives

Home Economics 12-18

Academic, Education, Related Art 4-12

Additional Requirements for Teachers of Adult and Homemaking Education (Courses required by the State Board of Vocational and Adult Education for all teachers of homemaking in Part-Time and George-Deen schools)

Education 304, 413 4

(2) Major—Dietetics and Institutional Management

Biology 362 3

Home Economics 306, 418, 328, 452 12

Electives

Home Economics 6-15

Academic, Education, Related Art 4-10

(3) Major—General Home Economics

Social Science 326 3

Home Economics 403 3

Home Economics 438, 400, 456 9

or

Home Economics 320, 315, 312, 316 12

Electives

Home Economics 6-15

Academic, Related Arts 4-12

ELECTIVES

In addition to the requirements for a major in Home Economics, students must arrange their choice of electives to complete two academic minors. Fifteen semester hours in courses of a particular subject matter field constitutes a minor.

Students may also choose electives in subject matter fields of their special interests and needs, to complete the total number of hours required.

	Sem. Hrs.
Education	
Adolescent Psychology 350	2
Educational Measurements 441	2
Statistics 461	2
Visual Education 360	2
Vocational Guidance 401	2
English	
Drama 406	2
Fiction 402	2

Play Production 444	2
Poetry 404	2
Speech II 223	2
Science and Mathematics	
Bacteriology 206	3
Biochemistry 322	3
Biology 362	2
Community Hygiene 442	2
Heredity and Eugenics 432	2
Mathematics 207	2
Mathematics 211	2
Physics I 421	5
Physics II 423	3
Zoology 316	2
Social Studies	
American Politics 417	2
Contemporary Civilization 461	3
Economic History of the U. S. 301	3
Labor Movements 414	3
Modern History 305	3
Recent U. S. History 409	3
Social Problems 411	2
Music	
(Maximum of two semester hours may be included in academic electives to count toward graduation)	
Solfeggio 150	1
Harmony Ia 151	1
Harmony Ib 152	1
Harmonic Analysis 153	1
Theory 160	1
Conducting 162	1
Band 166	1
Orchestra 167	1
Home Economics	Sem. Hrs.
Experimental Foods 438	3
Food Demonstrations 400	2
Readings in Foods 416	1
Applied Institution Management 300	3
Institution Foods 452	3
Institution Administration 328	3
Child Nutrition 306	2-3
Diet in Disease 418	3
Nutrition and Dietetics 310	3
Housing 352	2
Family Health 318	2
Art Seminar 426	2
Art History 430	2
Advanced Design 332	2
Crafts 400	2-3
Creative Arts 460	2-3
Period Furnishings 434	3
Problems in House Furnishing 323	2
Sketch 446	1

Applied Dress Design 312	2-3
Clothing Design 436	2
Children's Clothing 314	2
Clothing Economics 316	2
Clothing Problems 336	2
History of Costume 370	2
Textiles 315	2

Vocational Education Major

Women students interested in the vocational education major must be eligible for the vocational teaching certification upon graduation.

The distribution of the courses required for a major in this division will be very similar to that in the curriculum of the home economics division. The academic and education courses will be distributed as they are in that curriculum. The vocational education courses required will be

The Part-Time School
Teaching Homemaking in the Part-Time School
Psychology
Vocational Guidance
Problems in Teaching Homemaking in the Part-Time School

Technical courses will be taken from the list required in home economics, such requirements, however, to be modified to fit the particular needs of the individual student.

Credit examinations in technical courses in which the candidate has had teaching or trade experience will be allowed up to a maximum of 24 semester hours. Such credit will be released in units of 6 semester hours at the completion of each 32 semester hours of residence class work. The method for conducting such examinations will be similar to that set up for the men majoring in the vocational trade and industrial courses. (See Page 50.)

The total amount of credit required for this major will be 128 semester hours, with grade point requirements equalling the semester hours of credit.

Teachers of Vocational Homemaking
Senior B Classification

Senior B Classification is granted to all teachers of homemaking employed in the part-time schools of Wisconsin prior to January 1, 1926, who:

(a) Are not yet qualified to hold Senior A Classification.

(b) Have completed five years of successful teaching of homemaking in the part-time schools of Wisconsin.

(c) Have completed one summer, or the equivalent, in professional improvement. At least six credits must be earned in courses approved by the local board of vocational education and the State Board of Vocational and Adult Education.

The following courses must be taken first:

1. The Part-Time School	2 sem. hrs.
2. Teaching Homemaking in the Part-Time School	2 sem. hrs.

Senior B Classification will be extended as long as the possessor:

(a) Teaches homemaking successfully in the part-time schools of Wisconsin.

(b) If not already with a record of practical experience in homemaking involving some responsibility for at least twelve months, or the equivalent experience, spends one summer, or the equivalent, during each three-year period in practical homemaking as indicated above until such record shall total twelve months.

(c) Has agreed to and actually does spend one summer, or the equivalent, during each three-year period in professional improvement along the lines laid down for securing Senior A Classification and approved by the local board of vocational education and the State Board of Vocational and Adult Education. At least six credits must be earned over each three-year period. The following courses must be taken first:

1. The Part-Time School and Its Problems	2 sem. hrs.
2. Teaching Homemaking in the Part-Time School	2 sem. hrs.

Note: Three-year periods mentioned above are those ending as of August 31, 1938 - 1941 - 1944.

Senior A Classification

Senior A Classification is granted to and held by all teachers of homemaking who meet the following requirements:

(a) Practical experience in homemaking involving some responsibility for at least twelve months, or the equivalent experience.

Note: Practical experience in homemaking involving some responsibility is considered to be:

1. Experience with responsibility for all homemaking activities such as would be the case were the housewife to be away or ill or the mother to die leaving full responsibility to be assumed by the candidate.
2. Experience as an employee in the home responsible for certain homemaking activities such as would be the case where the candidate works with and assists the housewife but usually has delegated or assumes responsibilities for definite activities.

Teacher Training Form I. V. S. R. Item B.

(b) Occupational experience in employment other than teaching or homemaking for at least three months, or equivalent experience.

(c) Successful teaching experience of homemaking for not less than three years in the part-time school; one of these three years must be in Wisconsin.

(d) Completion of a four-year college course with a home economics major in an approved teacher-training institution, or the equivalent training.

(e) Completion of the following courses, which may be included in the four years of college training required under (d) above, or the equivalent specific training.

1. The Part-Time School ..... 2 sem. hrs.
2. Teaching Homemaking in the Part-Time School ..... 2 sem. hrs.
3. Educational Psychology ..... 2 sem. hrs.
4. Vocational Guidance ..... 2 sem. hrs.
5. Problems in Teaching Homemaking in the Part-Time School ..... 2 sem. hrs.
6. Economics I (Elementary) ..... 4 sem. hrs.
7. Socio-economic Electives ..... 4 sem. hrs.

"The foregoing requirements apply to teachers of vocational homemaking who are employed in the vocational or part-time schools of Wisconsin outside of Milwaukee."

Unclassified

All teachers of homemaking who do not have the qualifications for any of the ranks of classification as herein set up shall be designated as Unclassified.

Note: Four credits of graduate work done by a candidate for a higher degree is accepted in lieu of the six credits total required throughout these standards.

Description of Courses
Liberal Arts

Summer Session Note:

Courses offered in the Summer Session are described in The Summer Session Bulletin. This is issued each April for the following summer and will be sent on request.

EDUCATION AND PSYCHOLOGY

Psychology

Psychology 209 Psychology

Discussion of such fundamental aspects of human behavior as intelligence, memory, learning, motivation, emotion, sensation, perception, thinking, and imagination; relation of this knowledge to its physiological basis and an integration of this knowledge into a discussion of personality and its problems. Emphasis is placed throughout on how teachers may use this knowledge to aid pupils in achieving fuller development. Close coordination with Education 408 gives a special opportunity for the students to apply their psychological learnings to practice teaching situations and to bring teaching problems to their study of psychology.

Sem. I, II.

Mr. Marx Credit: 4

Psychology 350 Adolescent Psychology

Prerequisite: Psychology 209.

A comprehensive study of adolescent years, embracing the physical, emotional, social, moral and intellectual developments of the adolescent. An attempt is made to derive theory from only objectively proven facts and to give much practice in applying it to the practical problems of the home, school and community.

Sem. I, II.

Mr. Marx Credit: 2

Education

Education 203 Plans for Instructional Material

Prerequisites: Psychology 209 and Education 222.

Factors underlying the appropriate selection and preparation of instructional material in the industrial arts field, with the development of plans for effective presentation. Selected types of work prepared in a series of consecutive units for typical teaching situations. Unit analysis, preparation of instruction sheets, teaching plans.

Sem. I, II.

Mr. Brown Credit: 2

Education 222 Principles of Secondary Education

General introduction to present practice in secondary education including the historical development of the schools of this and certain European countries, the aims and functions of secondary education, the articulation of our educational system, the nature of the secondary school student and his problems, the function of guidance, the scientific study of the curriculum and extra-curriculum, teacher-community relationships and school costs.

Sem. I, II.

Mr. Marx Credit: 2

Education 320 Home Economics Education

Prerequisite: Junior Standing with approval to do On-Campus Student Teaching.

Educational values of home economics, methods of classroom teaching, provisions for individual differences, evaluation of results of instruction.

This course must parallel Psychology 209 and Education 408, and is planned to assist students in coordinating and interpreting the learnings from both in terms of home economics education.

Sem. I, II.

Miss Walsh Credit: 2

Education 410 Home Economics Education II

Prerequisite: Education 320 and approval to do Off-Campus Student Teaching.

Place of home economics in general education. Development of home economics curriculum in all day schools. Equipping the homemaking department. Further professional development of the teacher.

This course must parallel Off-Campus Student Teaching, and is closely coordinated with actual problems in the field.

Sem. I, II.

Miss Walsh Credit: 2

Education 357b Administration and Organization of Industrial Education I

Prerequisite: Sophomore Standing.

Procedures in occupational and subject analysis for instruc-

tional use. Identification of pupil classifications in purpose, progress, ability, and interest as controls in the organization of industrial content in teaching. Unit courses and curriculum planning. Identification and interpretation of instructional, administrative, and occupational factors to be recognized in planning and operating modern school shops.

Sem. I, II.
Mr. Bowman Credit: 2

Education 357a Administration and Organization of Industrial Education II

Prerequisite: Junior Standing.

Definition of teacher's professional skill in analysis, selection, and teaching on the lesson level, subject level, and curriculum level with solutions of typical problems. Administrative practice analyzed in functional assignment of school operating responsibility; measurement of teaching and supervisory staffs; maintaining and developing the teacher's professional skill; functioning of the school system through continuous survey; the school budget and financial control; maintaining and controlling of buildings and equipment.

Sem. I, II.
Mr. Bowman Credit: 2

Education 360 Visual Education

Prerequisites: Junior Standing in Education and in technical series.

Studies and class discussions concerning educational significance, suitability and comparative values, and selection, preparation, and use of the various visual aids. Also the principal phases of administrative details common to a visual education bureau or center. Actual experiences are provided in planning visual aids for definite teaching purposes, in construction of lantern slides and other visual aids, and in the presentation of lessons aided by visual means.

Sem. I, II.
Mr. P. C. Nelson Credit: 2

Education 408a Observation and Methods in Teaching Industrial Arts

Prerequisite: Psychology 209.

Observation of classes at work with written reports; preparation and presentation of lessons to the college class; meaning of education; teaching as a process; principles of learning; types of lessons; class and shop management; elements and conditions of easy control of pupils; punishments; personality of the teacher.

Sem. I, II.
Mr. Brown Credit: (See 408b)

Education 408b Student Teaching (Industrial Education).

Prerequisites: Education 203 and 408a and Junior Standing.

Observation and teaching of Industrial Education in different grades of the public schools. Preparation, use, and evaluation of courses of study, plans provisions for individual differences, teaching aids, tests. Some experience with various publicity techniques and with responsibility for the social and financial organization of the classes. Individual conferences with the supervising critic and group conferences with the Director of Practice.

Sem. I, II.
Mr. Wigen and others Credit: 5-6

Education 408a On-Campus Student Teaching in Home Economics

Prerequisite: Junior Standing

Induction into teaching through graded observation, participation and teaching in home economics in Menomonie Schools for one semester. These semester offerings include required and elective courses for boys and girls from the seventh through the twelfth grades. Study of home and community through home visiting and participation in community activities. Observation of and some experience in administration of a home economics department.

Sem. I, II.
Miss Walsh, Miss Quilling, Miss Walters,
Miss Trullinger Credit: 3

Education 408b Off-Campus Student Teaching in Home Economics

Prerequisite: Senior Standing, Ed. 209, Ed. 320, Ed. 408a

Experience in the activities and responsibilities of a teacher of

home economics in one of the off-campus teaching centers for a period of three weeks. Emphasis upon the entire school program, including more extensive study and experience with the contributions home economics can make to youth and adults, to the school and community. As staff members of the local schools, teachers participate as completely as possible in the life of the school and of the community.

Sem. I, II.

Miss Walsh, Mrs. Schultz, Miss Hartung Credit: 3
Miss Strese, Miss Smith

Note: The State Board of Vocational and Adult Education has made it possible for the senior home economics students to have this privilege of teaching in certain outstanding schools. Those schools cooperating in the program of Off-Campus Student Teaching are the following:

LaCrosse School of Vocational and Adult Education; Mr. John B. Coleman, Director, and Mrs. Katherine Schultz, Supervising Teacher of Homemaking.

Dunn County School of Agriculture; Mr. Gordon R. Stien, Superintendent, and Miss Frances Hartung, Supervising Teacher of Homemaking.

Mondovi High School; Mr. C. L. Dodge, Superintendent, and Miss Dorothy Strese, Supervising Teacher of Homemaking.

Durand High School; Mr. C. P. Larson, Superintendent, and Miss Myrtle Smith, Supervising Teacher of Homemaking.

Education 441 Educational Measurements

Prerequisites: Education 203 and 222, or Education 320.

Improvement of the written examination with special reference to validity, reliability, and objectivity. The course includes the present status, types, selection, characteristics, limitations, possibilities, use and interpretation of tests, as well as the conversion of raw scores and the distribution for the determination of grades. Emphasis is placed on the construction of informal objective tests so that the student may construct and use same when out in the field.

Sem. I, II.

Mr. Brown, Mr. Rich Credit: 2

Education 461 Statistics

Prerequisites: Senior Standing.

Includes methods of collecting, evaluating and recording statistical facts pertinent for the interpretation of data and the technique of drawing conclusions.

Sem. I, alternate years.

Mr. Rich, Mr. Brown Credit: 2

Education 480 Theory and Organization of General Shop

Prerequisites: Senior Standing (Junior standing permissible if student has senior standing in educational sequence).

The history of the general shop, including an analysis of the educational considerations, the identifications of all types of general shops with a study of each to include pupil classifications of boys and girls, equipment combinations, shop operating problems, including those of personal organization, stock room and store room organization and operation. Directed observation in the several types of general shops in The Stout Institute and assignments as assistants in student teaching practice classes in selected general shops. The identification of instructional methods, teaching devices, and preparation procedures in preparing instructional material. Identification of related information, classifications, and sources.

Sem. I, II.

Mr. Bowman, Mr. Brown, and others. Credit: 2

Note: Men who have completed the six-hour requirement in student teaching and the above course, will be permitted, so far as facilities allow, to take an additional two hours of student teaching in general shop work in the senior year and substitute this for two semester hours of technical work in shop work, drawing, or design.

Education 304 The Part-Time School

Prerequisite: Junior Standing.

A general acquaintance course in the philosophy, organization, and administration of vocational and adult education for the out-of-school group. The following points are considered: history and development of the part-time school, both in Europe and America, with special attention given to Wisconsin; Federal and State laws affecting the part-time schools; the type of pupils in the part-time schools and their needs; desirable characteristics

of the part-time school teacher; the work of the coordinator; home contacts; cooperation with outside organizations; cooperation with the Industrial Commission and Rehabilitation Division; the planning and care of equipment.
Sem. I, II, and S. S.
Miss Johnson
Credit: 2

Education 401 Vocational and Educational Guidance

The rise and development of the movement, with some attention to foreign progress; study of surveys and their application to the problem; analysis and evaluation of the use of intelligence and trade tests; careful consideration of personal functions and administration, in education, business, and industry; and preparation and classification of occupational information for use in guidance and placement. Assigned reading, lectures, and preparation of term papers.
Sem. I, II, and S. S.
Mr. Brown
Credit: 2

Education 407 Teaching Trade and Industrial Subjects in the Part-Time School

Recognized principles of teaching applied to typical shop situations as found in the part-time school. Methods of teaching based upon the psychological aspects of learning as applied to both shop and related subjects. Topics considered are applied to both shop and related subjects. Topics considered are (1) the use of the lesson plan and job sheet; (2) the demonstration, both for the whole class and for the smaller group; (3) individual practice, the follow-up on the demonstration; (4) assignment of reading and observation; (5) the notebook and note taking; (6) the lecture or class talk; (7) reports by pupils; (8) questioning; (9) checking and testing, examinations; (10) the use of models, charts, graphs, and diagrams; (11) the use of pictures of various kinds; (12) shop hygiene and safety; (13) management, routine, details, and discipline; (14) tool room procedure; (15) the maintenance of tools, apparatus, and equipment; and (16) the selection, care, and purchase of supplies.
S. S.
Credit: 2

Education 413 The Teaching of Homemaking in the Part-Time School

Formulation of objectives based upon the personal needs of the vocational school girl; suitable methods adapted to the part-time school pupil and the adult homemaker.
Sem. I, II, and S. S.
Miss Johnson
Credit: 2

Education 443 Problems in Teaching Trade and Industrial Subjects in the Part-Time School

Prerequisites: For Junior teachers (Wisconsin State Board of Vocational and Adult Education), three years of teaching experience in the part-time shop classes of the Wisconsin vocational schools and the completion of two years of training in an approved institution of college rank. Education 357b.

Individual work representing approved practice in the writing of text material that can be of immediate use in part-time classes. The writing of specific instruction sheets and the preparation of test material suitable for use in part-time classes.
S. S.
Credit: 2

ENGLISH

English 0 Sub-Freshman English Composition

Instruction and practice in the fundamentals of English composition, with special emphasis upon spelling, punctuation, and English grammar. The same text is used as in ordinary sections, but taken at a slower rate, with more practice leaves and fewer themes. This course is compulsory for those who prove unprepared to take English 102a. No credit and no registered grade. Students who begin English 0 may be advanced to a regular section on merit, and receive credit and a grade by taking the regular examination of all sections at the end of the semester.
Sem. I.

English 102a Freshman English Composition

Required of all freshmen. The course is designed to give the incoming freshmen competence in grammatical analysis and correctness, punctuation, mechanics, and the beginnings of logical

organization of material. A competence test in spelling is partial requirement for passing.
Sem. I, II.
Mr. Huntley, Miss Callahan Credit: 3

English 102b Freshman English Composition

Prerequisite: English 102a.
Required of all freshman. The course is designed to add to the freshman's competence in grammatical and mechanical accuracy, the principles and practice of rhetorical effectiveness in, writing, through increased vocabulary, variety of sentence structure, and varying modes of presentation of material. A competence test in vocabulary is partial requirement for passing. Attention is also given to reading.
Sem. II.
Mr. Huntley, Miss Callahan Credit: 3

English 216 Survey of English Literature

Required of all students classified beyond the sophomore level. An introduction to English literature from Beowulf to the end of the ninteenth century. Readings, reports, lectures, class discussions.
Sem. I, II, S. S.
Miss Callahan Credit: 2

English 346 Expository Writing

Prerequisite: English 102a, English 102b, English 106.
Required of all students classfied above the freshman level. Rigorous training in the organization and description of that knowledge attained in other courses; for the women, in H. E.; for the men, in I. E.; for both in other academic courses. The major work is an investigative term paper, with practice in bibliography, sources of material, logical organization, and footnotes.
Sem. I, II, S. S.
Mr. Huntley Credit: 2

English 402 Fiction

Prerequisite: English 216.
A further study of the principles that make for artistic narrative writing. Reading and analysis of short stories first; then

novels. The course is organized according to types, rather than according to chronology.
Sem. I, II, S. S.
Mr. Huntley Credit: 2

English 404 Poetry

Prerequisite: English 216.
A further study of the principles of poetry; intensive and wide reading by types rather than by chronology.
Sem. I, II, S. S.
Mr. Huntley Credit: 2

English 406 Drama

Prerequisite: English 216.
A further study of the principles of dramatic literature, with intensive reading of a few great types and wider reading of other plays, regardless of time of composition or national origin. Emphasis upon Shakespeare.
Sem. II.
Miss Callahan Credit: 2

English 106 Speech I

Required of all Freshmen. Practice in the elements of effective speaking before a class, with criticism from the instructor.
Sem. I, II.
Miss Erickson Credit: 2

English 223 Speech II

Prerequisite: English 106.
Required of all men; elective for women. Principles of rhetoric applied to the spoken code, with emphasis upon the ideas to be communicated. Parliamentary procedure, propaganda analysis, group discussion.
Sem. I, II.
Miss Erickson Credit: 2

English 444 Play Production

Elective for juniors and seniors. A study of the techniques of all aspects of play production, including selection and cutting of plays, directing, acting, make-up, costume, lighting, and stage equipment.
Sem. II, S. S.
Miss Erickson Credit: 2

MATHEMATICS

Mathematics 207 College Algebra I

Fundamental processes and selected work in college algebra. Special efforts are made to give each student his maximum progress.
Sem. I, II.
Mr. Rich, Mr. Tustison Credit: 2

Mathematics 211 College Algebra II

Prerequisite: Mathematics 207.
Continuation of Mathematics 207 including special work in logarithms and the slide rule.
Sem. I, II.
Mr. Rich, Mr. Tustison Credit: 2

Mathematics 313 Trigonometry

Prerequisites: Mathematics 207 and 211.
Introduction to the elements of trigonometry. The solution of the right triangle. Variations of the trigonometric functions, the fundamental relations and functions of the sum and difference of angles. The solution of the oblique triangle. Slide rule and logarithmic calculations using the trigonometric functions in solving practical problems. One field problem in the use of the sextant or the transit.
Sem. I, II.
Mr. Rich, Mr. Tustison Credit: 3

Mathematics 314 Analytic Geometry

Prerequisites: Mathematics 207, 211, 313.
Algebraic treatment of geometry. A graphical analysis of the straight line, the circle and conic sections in general.
Sem. II, 1939-40, 1941-42, etc.
Mr. Rich Credit: 2

Mathematics 315 Calculus

Prerequisites: Mathematics 207, 211, 313, and 314; or consent of the instructor.
A course of differential and integral calculus with practical application. A year's course, 2 hrs. each sem.
Sem. I and II, 1940-41, 1942-43, etc.
Mr. Rich Credit: 4

Mathematics 316 College Geometry

Prerequisites: Mathematics 207, 211, and 313; or consent of the instructor.
This course may be called a college course of "Geometry in Action", covering the view points as taken by projective geometry, descriptive geometry, and metrical geometry. The course includes the study and use of linkage instruments to facilitate a thorough understanding of the subject material that is given. It is closely correlated with the work as a whole in Industrial Education.
Sem. I, 1939-40, 1941-42, etc.
Mr. Rich Credit: 2

MUSIC

Music 150 Solfeggio

The study of solfeggio, which includes ear training, is the foundation of muscial education. Such fundamental principles as rhythmic notation, measure, three against two, tonal notation and relations, intervals and inversions, diatonic and chromatic scales, signatures, and rhythmic and melodic dictation are studied.
Sem. I.
Mr. Cooke Credit: 1

Music 151 Harmony 1a

Prerequisite: Music 150.
A detailed study of chord construction. All triads in major and minor modes, and dominant sevenths and their inversions. Dispersed harmony. Keyboard work and the playing of cadences.
Sem. II.
Mr. Cooke Credit: 1

Music 152 Harmony 1b

Prerequisite: Music 151.
Introduction to counterpoint; passing tones; contrapuntal treatment of the harmonic material of Harmony 1a. Harmonization of scales and simple melodies at the keyboard.
Sem. I.
Mr. Cooke Credit: 1

Music 153 Harmonic Analysis

Prerequisites: Music 151 and 152.
This course is invaluable to all students who expect to become leaders of choral and instrumental groups. It explains the harmonic structure of musical composition.
Sem. II.
Mr. Cooke Credit: 1

Music 160 Theory

Prerequisites: Music 151 and 152.
Acoustics; musical terminology; notation; ornamentation; the Gregorian modes; description of the orchestral instruments; analysis of music forms, including the song forms. Also practical work in elementary orchestration. This course summarizes the knowledge necessary to every teacher and professional musician.
Sem. I.
Mr. Cooke Credit: 1

Music 162 Conducting

Prerequisites: Junior Standing. Participation in at least one of the musical organizations of the college.
Technique of conducting. Chorus and orchestra from viewpoint of prospective conductor. Principles of interpretation. Score reading and transposition. Care and classification of voices.
Sem. II.
Mr. Cooke Credit: 1

Choral Organizations

Membership in the glee clubs is open to all students. Try-outs are held at the beginning of the school year, and a waiting list provides opportunity and protection for those desiring admittance at a later date. Several concerts are sung including broadcasts and those given in cities throughout Wisconsin and Minnesota. Strict training is provided in the fundamental principles of chorus singing through sectional as well as regular weekly rehearsals. Several times during the year the two clubs unite, forming a mixed chorus of over one hundred voices. All concerts are sung from memory.
Full year
Mr. Cooke

Music 164 Men's Glee Club

The Men's Glee Club consists of 40 members.
Full year.
Mr. Cooke Credit: 1

Music 165 Women's Glee Club

The Women's Glee Club consists of 65 members.
Full year.
Mr. Cooke Credit: 2

Music 166 The College Band

Membership in the college band is open to all students who have had training and experience in the playing of a band instrument. The band's membership consists of 45 players, including the drum major. On parade the band is preceded by the color bearers and the color guard; at football games the band maneuvers between halves, spelling out letters and executing other military drills. Formal concerts are given throughout the year. (No credit allowed if credit has already been given in Orchestra)
Full year.
Mr. Cooke Credit: 2

Music 167 The College Orchestra

The orchestra is an organization of twenty-five members with symphonic instrumentation. Rehearsals are held once a week and special attention is given the string section in private rehearsals. This organization makes public appearances on and off the campus, and provides the accompaniment to the larger choral works presented by the combined glee clubs.
(No credit allowed if credit has already been given in Band)
Full year.
Mr. Cooke Credit: 2

PHYSICAL EDUCATION AND COACHING

Physical Education 127 Physical Education I (Men)

Wide range of free exercises, calisthenics, floor work, and games. In season, work in athletics. Physical efficiency tests to determine individual improvement. Individuals will conduct

classes in Physical Education. Life saving tests to qualified individuals who desire Red Cross certificates.
Sem. I, II. Credit: 1
Mr. Johnson (0-2)

Physical Education Intramural Sports (Men)

A complete program of all sports in season consisting of an "Athletics for All" aim.
Mr. Johnson

Physical Education 263 Basketball Coaching

Prerequisite: Physical Education 127 (9 weeks).
Instruction in individual and team fundamentals: Passing, goal throwing, dribbling, turns, stops, special drills, etc. Team play: Styles of offense and defense used by the leading coaches. Problems of organization and administration: Schedules, training, selection of material, and the purchase and care of equipment.
Sem. I, 2nd quarter; Sem. II, 3rd quarter. Credit: 1½
Mr. Johnson (2-2)

Physical Education 265 Football Coaching

Prerequisite: Physical Education 127 (9 weeks)
Instruction in individual and team fundamentals: Tackling, blocking, kicking, passing, special drills, etc. Team play: Styles of offense and defense used by the leading coaches. Problems of organization and administration: Schedules, training, selection of material, and the purchase and care of equipment.
Sem. I, 1st quarter; Sem. II, 4th quarter. Credit: 1½
Mr. Johnson (2-2)

Hygiene 101

Hygiene of the teacher, pupil and curriculum. Personal hygiene problems of teacher and pupils. Survey of school buildings, grounds, heating, lighting, ventilation, safety and janitorial methods. Survey of hygiene of food, water, air, climate, sewage disposal, common communicable and non-communicable diseases, and vital statistics. First aid and emergency treatment of common accidents and injuries. Safety education and precautions. Detection of physical defects and remedial measures.
Sem. I, II.
Mr. Johnson Credit: 1

Physical Education 128 Physical Education I (Women)

First year physical education is planned to meet the needs of the women students. Careful observation shows that these are along the lines of personal development, present recreation, and training for future recreation.
Four quarters of physical education are required of each freshman woman. One of these quarters must be given over to a course called "Health and Posture Training." One other activity required of each girl is swimming. These two courses may be taken at any time during the first year. The first and fourth quarters should be utilized for outdoor work.
The activity during the remaining two quarters may be selected by the students according to their interests and abilities. The activities from which they may choose are as follows: Field hockey, tennis, archery, basketball, volleyball, bowling, folk dancing, kittenball, badminton, deck tennis, and shuffleboard.
The women differ so much in their ability in swimming that the work is given in separate classes to beginner, intermediate, and advanced groups.
Sem. I, II. Credit: 0
Miss Antrim (-2)

Physical Education 228 Physical Education II (Women)

Sophomore women take four quarters of physical education but only one of these is a requirement, swimming. This is an unusually good activity for the development of health and beauty of form. It exercises all muscles equally well and leads to later enjoyment and continued activity.
Each girl is urged to select one other individual sport such as tennis, golf, bowling, or archery to be used as a hobby during the junior and senior years.
Each individual is also encouraged to take at least one quarter of an activity in which team play is necessary. All should develop the social principles of working as a team unit.
So many electives allow for variations in interests and abilities and in most cases lead to a higher standard of work.
The electives for the sophomores are: Field hockey, tennis, archery, basketball, volley ball, bowling, dancing, kittenball, badminton, deck tennis, and shuffleboard.
Sem. I, II. Credit: 0
Miss Antrim (-2)

Physical Education 380 Theory and Principles of Physical Education for Women Teachers

Prerequisite: Physical Education 128.

A course for women who wish to teach physical education in connection with other subjects. It is a careful study of the aims and objectives of modern physical education as applied to work in schools, camps, and supervised playgrounds. The material includes formal and informal methods of teaching, the presentation of the varied new physical education programs, the related purpose of physical examinations and personal hygiene, a study of the organization and administration of gymnasiums, playgrounds, recreation centers, swimming pools. Seasonal programs adapted to groups of various ages are formulated for indoor and outdoor work.

Sem. I, II. Credit: 2
Miss Antrim 1 hr. lecture, 2 hr. lab.

Physical Education Correction Individual Gymnastics

Special diagnosis and prescription of exercises for correction of minor physical deficiencies which are noted at the time of the physical examination by the college physician. In this class, each student is considered as an individual, special case. It is primarily for those who wish to improve their posture, overcome detriments to their health, e.g., weak arches, weak abdominal muscles, indigestion, constipation, overweight, underweight, poor circulation, sleeplessness, weak heart, etc. A silhouettograph camera helps to determine and verify posture needs, preceding corrective work.

A corrective room in the gym has been especially equipped with a triple mirror, mats for exercise, beds for students who need regular rest and relaxation periods to build up reserve strength and vitality for better health and efficiency.

Sem. I, II. Credit: 0
Miss Antrim Hours arranged

Physical Education Recreational Sports (Women)

The Women's Athletic Association sponsors various sports which promote interest and enthusiasm in recreational activities and intramural competition. There is created an opportunity for every girl in school to participate in various recreational activities, and in "play for play's sake."

In the list of fall interests, a girl may choose field hockey, archery, tennis, or organized hiking. Winter diversions include volley ball, basketball, bowling, shuffleboard, deck tennis, life saving methods, swimming, diving, ice skating, and badminton. Spring activities include archery, tennis, and kittenball. At least one afternoon a week the swimming pool is open for women. Two evenings a week they may use the gym floor for recreational activities and intramural sports.

Miss Antrim

PHYSICAL SCIENCES
BIOLOGY

Biology 122 General Biology

Study of living things, their structure and organization, metabolic processes, behavior, reproduction, and their relationship to their environment and to each other.

Sem. I, II. Credit: 3
Miss Marshall, Miss Hale (1-4)

Biology 214 Physiology

Study of mammalian anatomy based on the dissections of cat, sheep, brain and eye, the foetal pig. Histological studies. Survey of the fundamental physiological processes of the animal body with special reference to man. Embryological development and genetics characteristic of vertebrates.

Sem. I, II. Credit: 3
Miss Marshall, Miss Hale (1-4)

Bacteriology 206 General Bacteriology

Morphological and physiological characteristics of yeasts, molds and bacteria; methods used in culture and identification; etiology of common diseases and studies on immunization; introductory studies in bacterial analysis of water, milk and other problems in sanitation.

Sem. II. Credit: 3
Miss Marshall (1-4)

Biology 316 Zoology

Prerequisite: Biology 122.

A survey of the animal field with emphasis on classification,

ecology, and evolution and other general subjects. Special consideration is given to parasites and any other groups which are economically important to man.

Sem. I. Credit: 2
Miss Marshall (2)

Biology 442 Community Hygiene

Prerequisite: Biology 214, Bacteriology 206.

Fundamentals of health, control of communicable disease, preventative medicines, public health programs, etiology of disease. Pathological bacteriological, and immunological aspects emphasized. Operation of national and state health laws.

Sem. II. Credit: 2
Miss Hale (2)

Biology 362 Advanced Physiology

Prerequisite: Biology 214, Chemistry 115.

Histological and quantitative studies on human blood, experiments on frog and turtle hearts and on muscle-nerve preparations of the frog. Experiments on human body.

Sem. II. Credit: 3
Miss Hale (1-4)

Biology 432 Heredity and Eugenics

Prerequisite: Biology 122, Biology 214.

A study of laws of inheritance and means for improvement of the human race.

Sem. I. Credit: 2
Miss Marshall, Miss Hale (2)

CHEMISTRY

Chemistry 115 Inorganic Chemistry I

Chemical viewpoints, laws, theories, principles and atomic structure as related to chemical reaction. The study of non-metallic elements followed by that of metals.

Sem. I, II Credit: 5
Miss McCalmont, Miss Hooper (2-6)

Chemistry 208 Organic Chemistry

Prerequisite: Chemistry 115.

Influence of structure on chemical behavior; isomerism; the study of hydrocarbons, alkyl halides, alcohols, ethers, aldehydes and ketones, acids and esters, fats, soap, carbohydrates and proteins.

Sem. II. Credit: 4
Miss Hooper (2-4)

Chemistry 322 Biochemistry

Prerequisites: Chemistry 208, Biology 214.

Study of colloids; proteins and protein digestion products; of the intermediary metabolism of carbohydrates, fats, and proteins in the animal body. Qualitative and quantitative determinations of the end-products of metabolism.

Sem. I, II. Credit: 3
Miss Hale (1-4)

Chemistry 438 Quantitative Analysis

Prerequisite: Chemistry 115.

Use of analytical balance, preparation of standard solutions both gravimetrically and volumetrically, typical food analysis for women and inorganic determinations for men. Emphasis of technique and accuracy, final application of theory learned in beginning courses.

Sem. II. Credit: 3
Miss McCalmont (1-4)

Chemistry 445 Chemistry of Materials

Water and its relations to boiler use, fuels—solids, liquids, gaseous,—lubricants, rubber, paints, varnishes, stains, building materials—cement, tile, brick, stones—ferrous and non-ferrous alloys.

Sem. II. Credit: 3
Miss McCalmont (2-2)

PHYSICS

Physics 421 Physics I

Electricity. Mechanics. Heat. Practical application of general physical laws is stressed in special laboratory problems, or dem-

onstrated by apparatus or machines in actual use. Content applicable to the needs of prospective teachers in industrial education, home economics, or the sciences.
Sem. I, II. Credit: 5
Mr. Tustison, Mr. Rich (3-4)

Physics 423 Physics II

Prerequisite: Physics 421.
Sound and light, a continuation of Physics I, completing the study of the general laws of Physics. The subjects are covered through lecture and related laboratory work. Content is especially adapted to prospective teachers of physics and general science.
Sem. I, II. Credit: 3
Mr. Tustison, Mr. Rich (2-2)

Physics 425 Physics III

Prerequisites: Physics 421 and 423, Mathematics 207.
Strength of materials and the materials of construction in machine and building trades. Problems in wood, steel, and concrete construction. Standard and special tests in various grades of iron and steel; building materials such as cement, brick, and woods of various kinds, glues, screws, nails, and other fasteners.
Sem. I, II. Credit: 3
Mr. Good (2-2)

SOCIAL SCIENCES

Social Science 103 American History

An interpretative survey course with emphasis on the period since the Constitutional Convention. An effort to interrelate the various factors, economic, social, political, and religious which have contributed to the development of American society.
Sem. I, II. Credit: 2
Mr. Shafer, Mr. Price

Social Science 105 American Government

Critical review of the machinery and functions of national, state, and local governments. Emphasis on proposed reforms of governmental machinery and an analysis of the significance of citizenship.
Sem. I, II.
Mr. Price, Mr. Shafer Credit: 2

Social Science 201 Economics I

Fundamental principles of economic science; their application to the life of the individual in the modern economic and social order.
Sem. I, II.
Mr. Stephan Credit: 3

Social Science 301 Economic History of the United States

Prerequisite: Social Science 201.
A study of the economic evolution of the United States since colonial times. Approximately two-thirds of the course is devoted to the period since the Civil War. A special emphasis is placed on the development of economic problems and the foundations of modern industry.
Sem. I, II.
Mr. Price Credit: 3

Social Science 303 Economics II

Prerequisite: Social Science 201.
Continuation of Economics I, including the study of a selected group of modern economic problems.
Sem. II
Mr. Stephan Credit: 2-3

Social Science 305 Modern History

Prerequisite: Social Science 103.
The study of significant events and movements in world history since 1815. The emphasis throughout the course is upon the motivating forces of nationalism and liberalism, especially as they relate to the evolution of the contemporary states and governments and to international relations.
Sem. I, II.
Mr. Shafer Credit: 3

Social Science 309 Principles of Sociology

Fundamental principles and elements of sociology, designed to give the student a comprehension of social forces, social processes, and social institutions in modern life.
Sem. I, II.
Mr. Stephan Credit: 3

Social Science 326 Problems of the Family

Study of social problems of family life. Special emphasis on de-

velopment and maintenance of satisfactory family relationships. Should parallel Home Economics, Education 424, Social Science 309.
Sem. I, II.
Miss Michaels and others Credit: 3

Social Science 409 Recent History of U. S.

Prerequisite: Social Science 103.
A study and interpretation of American history since the Civil War. Emphasis is put on those developments which best help explain present United States conditions. Some time is devoted to the study of recent world problems in which the United States has played a part.
Sem. II.
Mr. Shafer Credit: 3

Social Science 411 Social Problems

Prerequisite: Social Science 309.
Modern social problems selected from the following group: population and immigration, poverty and dependency, marriage and the family, classes and races, abnormality, crime, community disorganization and housing. An attempt is made to ascertain possible solutions to these problems from the viewpoint of social control and individual adjustments.
Sem. I.
Mr. Stephan Credit: 2-3

Social Science 414 Labor Movements and Problems

Prerequisite: Social Science 104, 201.
An analysis and interpretation of the historical background of the modern labor movement, and of fundamental causes of and proposed solutions to contemporary labor problems such as unemployment, wages, hours, and political activity.
Sem. I, II.
Mr. Shafer Credit: 3

Social Science 417 American Politics

Prerequisites: Social Science 103, 105.
Analysis of modern political parties, nominating methods, campaigns, elections, practical politics in legislative bodies, machines and bosses, and other divisions of present day American politics.

Reforms and remedies for existing political malpractice are critically examined.
Sem. I.
Mr. Price Credit: 2-3

Social Science 461 Contemporary Civilization

Open to students having at least six hours credit and a B average in the social sciences.
A course to correlate the information acquired in the social sciences and to interpret its meaning for contemporary civilization. Through lectures, discussions, reports, and wide reading, an attempt is made to bring this information to bear on significant economic, political, social, and historical aspects of contemporary civilization in order that each student may further evolve his own social philosophy.
Sem. II.
Mr. Shafer Credit: 2

Home Economics
Art

Art 106a Introduction to Art

Experiences in the graphic and plastic arts which will lead to an understanding of the fundamental principles of design and color with emphasis on art for personal growth. Line, Standard or Prang color systems. Harmony and Unity are used in laboratory experiments with flower arrangements, table arrangements, color in foods study, making a portfolio, wax carving, and vegetable printing.
Sem. I. Credit: 2
Mrs. Druley-Eeles, Miss Carson (1-2)

Art 106b Introduction to Art

Continued experiments which will acquaint the student with other principles of design and color with emphasis on art which will function in everyday situations. Proportion, spacing, scale, line, Munsell color theory, and texture in addition to repetition of principles previously learned but in new situations, are applied in costume selection, pattern, lettering, posters, and art appreciation.
Sem. II. Credit: 2
Mrs. Druley-Eeles, Miss Carson (1-2)

Art 220 Clothing Selection

Personal factors which influence the selection of dress for the individual. Application of art principles to clothing.
Sem. I, II. Credit: 2
Miss Jeter, Miss Van Ness

Art 332 Advanced Design

Prerequisite: Art 106a-b.
Experiences in designing objects to be modeled or carved, and in making surface patterns for various craft articles.
Designs made in the spirit of the times as they have occurred in history; Primitive, Egyptian, Greek and Modern, as well as designs made from nature forms. Spatter gum stencils, tempera painting, soap carving and pottery are some of the media used to express the designs created.
Sem. II. Credit: 2
Mrs. Druley-Eeles (-4)

Art 206 Art Appreciation

A study of art in its cultural aspects, designed to develop in the student a greater appreciation of creative art.
Sem. I, II.
Mrs. Druley-Eeles Credit: 1

Art 334 House Furnishing

A study of the housing and house furnishing needs of the family as they relate to health, privacy, convenience, economy, leisure time activities and beauty in the home.
Sem. I, II. Credit: 2
Miss Carson (1-2)

Art 323 Problems in House Furnishing

A course in which curtains, slip covers, screens, and other articles for the house may be planned and made, and furniture reconditioned.
Sem. II. Credit: 2
Miss Carson (-4)

Art 400 Crafts

Prerequisite: Art 106a-b.
Creative designing in various craft media with emphasis on obtaining beauty through the use of inexpensive or waste materials such as tin cans, sheet cork, paper mache, clay, raffia, cardboard, cloth, leather, and wood.
Sem. I, II. Credit: 2-3
Mrs. Druley-Eeles (-4 or -6)

Art 426 Seminar in Art

Prerequisite: Art 106a-b
Problems relating to the selection, adaptation, and presentation of art subject matter in homemaking courses for various types of schools. Choice of problems based on needs and interests of individual students.
Sem. I or II.
Mrs. Druley-Eeles Credit: 2

Art 430 Art History

Survey of the fine arts in the most significant historic periods, with emphasis on contemporary work. Visits to museums and galleries.
Sem. I, II.
Mrs. Druley-Eeles, Miss Carson Credit: 2

Art 436 Clothing Design

Study of advanced problems of clothing design.
Prerequisite: Home Economics 218.
Sem. II Credit: 2
Miss Van Ness (1-2)

Art 446 a, b Sketch

A study of the essentials of form, light-dark, and color with emphasis on composition. Sketching in pencil, charcoal, and water color.
Sem. I, II. Credit: 1
Mrs. Druley-Eeles (-2)

Art 460 Creative Arts

Experiences with the various art and craft media. The first week to ten days will be given over to "get acquainted with your material" experiments in which demonstrations and student manipulation of various creative media will be emphasized. After a discovery of the medium best suited to the individual,

the remainder of the time will be given to concentration on that particular medium for creative work.
Sem. II and S. S. Credit: 2
Mrs. Druley-Eeles (-4)

FOODS AND NUTRITION

Home Economics 112 Introduction to Nutrition

Parallel: Home Economics 114
Course emphasizes the maintenance of health through desirable food selection, habits, and health practices. Planned to help freshmen with health and nutrition problems.
Sem. I, II.
Miss Cruise, Miss Buchanan, Miss Rogers Credit: 2

Home Economics 212 Foundations of Nutrition

Prerequisites: Home Economics 112, 114.
A scientific study of the fundamental principles of human nutrition as a basis for the selection of food for the individual and the family group.
Sem. I, II. Credit: 2
Miss Cruise (-4)

Home Economics 114 Introduction to Foods

Parallel: Home Economics 112
A study of basic principles in the preparation of foods, and simple table service.
Sem. I, II. Credit: 2
Miss Rogers, Miss Buchanan, Miss Cruise. (1-2)

Home Economics 230 Food Preparation

Prerequisites: Home Economics 112, 114.
Further study of the basic food principles involved in the preparation of foods. Foods suitable for family meals especially emphasized.
Sem. I, II. Credit: 3
Miss Buchanan (1-4)

Home Economics 300 Applied Institution Management

Prerequisites: Home Economics 230, 308.
This course is planned to give the student experience with problems of institution management by operating the college tea room.
Sem. I, II. Credit: 3
Miss Hadden (1-6)

Home Economics 306 Child Nutrition

Prerequisite: Home Economics 212.
Food requirement of children and indices of nutrition. Methods of improving child nutrition through the school; field work.
Sem. I, II. Credit: 2 or 3
Miss Cruise (2) (2-2)

Home Economics 308 Meal Management

Prerequisite: Home Economics 230 and 212.
A study of the management factors involved in food problems. Buying of foods; planning, preparing, and serving various types of meals.
Pretests covering food practices will be required of students enrolling in this course.
Sem. I, II. Credit: 3
Miss Rogers (-6)

Home Economics 310 Nutrition and Dietetics

Prerequisites: Home Economics 212. Chemistry 322 (may parallel).
A study of normal metabolism and human nutrition; infant feeding, calculation and preparation of diets.
Sem. I. Credit: 3
Miss Cruise (2-2)

Home Economics 452 Institution Food Preparation

Prerequisites: Home Economics 230, 308.
Preparation of food in large quantities, standardization of formulae, calculation of costs. Care and operation of equipment. Menu planning for the institution. Laboratory practice in the college cafeteria.
Sem. II. Credit: 3
Miss Hadden (1-4)

Home Economics 328 Institution Administration

Prerequisite: Home Economics 452.
A study of the organization and administration of the food

service in various types of institutions such as hospitals, school lunch rooms, and commercial food establishments. Types of organization, methods of administration, personnel management, purchasing of food and supplies, records and accounts, equipment selection and arrangement.

Sem. I. Credit: 3
Miss Hadden

Home Economics 400 Food Demonstrations

Prerequisites: Home Economics 230, 308.
Instruction in the technique of food demonstration, planning and giving demonstrations for different groups; lecture demonstrations by specialists from commerical fields.

Sem. I, II. Credit: 2 (-4)
Miss Buchanan

Home Economics 416 Reading in Foods

Survey of research work being done in foods by various educational institutions, commercial firms, special bureaus, etc.

Sem. I, II. Credit: 1
Miss Rogers

Home Economics 418 Diet in Disease

Prerequisites: Home Economics 310, Physiology 362.
Abnormal nutrition with dietary treatment of certain diseases; experiments and problems with respiratory apparatus, calorimeter, and laboratory animals.

Sem. II. Credit: 3 (2-2)
Miss Cruise

Home Economics 438 Experimental Foods

Prerequisites: Home Economics 230 and Chemistry 208
This course involves food preparation from the experimental viewpoint developed from a review of the literature in problems of food research. A study is made of food principles and experimental methods which influence standard food products. Class and individual problems.

Sem. I, II. Credit: 3 (-6)
Miss Rogers

Home Economics 456 Special Food Problems

Prerequisite: Home Economics 438.
Directed individual work. Involves an extensive study of principles and applications of research methods as applied to food problems. Intensive literature review of problems undertaken.

Sem. II. Credit: 2-3 (4-6)
Miss Rogers

CLOTHING AND TEXTILES

Home Economics 102a Introduction of Clothing

Course planned with view of integrating the various aspects of clothing. Emphasis on personal clothing problems and good standards of dress for college women. Fundamentals of clothing construction.

Sem. I, II. Credit: 2 (-4)
Miss Jeter, Miss Van Ness

Home Economics 102x

Upon completion of Home Economics 102, students are required to do certain clothing construction processes until a predetermined degree of speed and accuracy in technique has been attained. This standard must be met in a practical test before registration in Home Economics 218.

Home Economics 218 Clothing Construction

Prerequisites: Home Economics 102a, 102x.
A study of family clothing with emphasis on personal and technical problems involved in selection and making of silk, rayon and wool dresses.

Sem. I, II. Credit: 3 (1-4)
Miss Jeter, Miss Van Ness.

Home Economics 320 Advanced Clothing Construction

Prerequisites: HE 102a, or equivalent.
Opportunity to continue pattern study and plans of up-to-date

Home Economics 352 Housing

Social and economic aspects of housing in relation to family welfare. Rural and urban housing conditions with remedial and

construction processes will be provided. Individual needs and problems in the teaching field will be considered.
Miss Van Ness Credit: 2 or 3

Home Economics 312 Applied Dress Design

Prerequisite: Home Economics 218
Practical application of principles of costume design through planning and construction of garments by various techniques including draping. Emphasis on individuality in costume through appropriate use of line, proportion, color and texture. Field trip required.
Sem. I, II. Credit 2-3
Miss Van Ness (-4-6)

Home Economics 315 Textiles

Study of fibers, yarns, weaves, finishes and design as applied to the selection of clothing and household fabrics.
Sem. I Credit 2
Miss Van Ness (1-2)

Home Economics 314 Children's Clothing

A study of the problems involved in the selecting, planning, and making of children's clothing. Emphasis is placed on the relation of design to self development. Garments are designed and made for children who can be studied in the laboratory.
Sem. I. Credit: 2
Miss Jeter (-4)

Home Economics 316 Clothing Economics

Prerequisite: Home Economics 317.
Buying points of clothing; evaluation of buying guides; study of clothing plans for good management of individual and family clothing.
Sem. II.
Miss Van Ness Credit: 2

Home Economics 336 Clothing Problems

Investigation of problems in clothing with organization and presentation of results. Emphasis on problems which arise in the

teaching of clothing; evaluation and preparation of illustrative material; practice in demonstration.
Sem. I, II. Credit: 2
Miss Jeter (1-2)

Home Economics 370 History of Costume

A study of the development of costume. Factors which influence change in fashion; qualities in style that make for lasting beauty; influence of the past on present-day costume.
Sem. I.
Miss Jeter Credit: 2

FAMILY LIFE

Home Economics 116 Personal Development

Study of personal problems of freshmen women; emphasis on personality development.
Sem. I, II.
Miss Michaels Credit: 2

Home Economics 226 Home and Family Life

Study of the many home conditions and family needs such as food and its service, textiles and their use, clothing, family income, activities and relationships as they affect family living.
Sem. I, II.
Miss Michaels, Miss Tracy Credit: 2

Home Economics 317 Consumer Information

Study of conditions relative to purchasing of goods, with emphasis on consumer information and guidance in the distribution of incomes and the selection of commodities to suit same. Should parallel Social Science 201.
Sem. I, II.
Miss Van Ness Credit: 2

Home Economics 318 Health of the Family

A study of factors essential to health and physical development of adults and children, of parents' responsibilities for family's

health, and of community measures for promoting health.
Sem. I, II.
Miss Trullinger Credit: 2

Home Economics 403 Home Management

Prerequisite: Junior Standing.
A study of the management of time, energy, and money and home equipment. Emphasis on the social aspects and the adjustments of family life. Residence in the Home Management House for six weeks with actual experience in the management of the house and the care of a young child.
Sem. I, II.
Miss Trullinger Credit: 3

Home Economics 405 Standards of Living

Study of the scales and standards of living of the American and foreign countries. Emphasis on the standard of living of families on moderate incomes.
Sem. II.
Miss Trullinger Credit: 2

Home Economics 424 The Social and Mental Growth of the Pre-School Child

Perequisite: Junior Standing.
A study of the physical, mental, emotional, and social development of the child. Emphasis on habit formation, emotional control, and social adjustment.
Sem. I, II. Credit: 3
Miss Tracy (2-2)

Home Economics 432 Economics of House Furnishing

Study of consumer house furnishing problems based on utilitarian, economic, aesthetic, and social values of household commodities. Quantity and quality budgets at different price levels. Visits to house furnishing markets.
Sem. II.
Miss Carson Credit: 3

restrictive measures for housing evils. Costs of housing, relation of cost to family income, and methods of financing.
Sem. I.
Miss Carson Credit: 2

Note: See Social Science 326 for Course in Problems of the Family.

Industrial Education

SHOP WORK, DRAWING, AND DESIGN

All courses in this group are nine weeks in length, meeting daily. Due to the variation in the types of content included in these courses the following tabulation is given to indicate the time requirements for credits.

Figures in parentheses indicate hours in preparation:

1 periods per week (2)	18 wks. 1 semester hour
2 periods per week (1)	18 wks. 1 semester hour
3 periods per week (0)	18 wks. 1 semester hour
6 periods per week (0)	9 wks. 1 semester hour
12 periods per week (0)	9 wks. 2 semester hours
10 periods per week (2)	9 wks. 2 semester hours

Industrial Education Orientation

(For Industrial Education Freshmen.)
Admission requirements, program operation, attendance regulations, credits, scholastic measurement. Analysis of characteristics of a good performance in shop or drawing courses, in professional courses, in academic courses, and as a teacher. Personnel problems in physical, social, and mental phases. Curriculum opportunities, professional requirements, trend in requirements in calls for teachers. Analysis of personal performances. Significance of choices available.
Sem. I Credit: 0
Mr. Bowman, Mr. Price,
and others Meets 1 hr. per week Sem. I

AERONAUTICS

Industrial Education 271 Civil Pilot Training

Prerequisites: Completion of two years of approved college work and prescribed physical examination.

Course consists of ground instruction as follows: Meteorology, 24 hours; Navigation, 24 hours; Civil Air Regulations, 24 hours; Aircraft Operation, (powerplants, instruments, parachutes), 24 hours; and 35 to 45 hours practical flight training. Upon successful completion of a written examination covering the ground school work, and a flight test by government inspector, student is given a Private Pilot License entitling him to pilot an airplane anywhere in the United States, not for hire. Costs for pilot training, including medical examination, insurance and service fee, total twenty-five dollors.
statement elsewhere in this bulletin.

Sem. I, II, S.S.

Mr. Smith (Flight Contractor) Credit: 4

DRAWING

Industrial Education 121 Elements of Mechanical Drawing I

Analysis of fabricated objects; recognition of elementary shapes; identification of elementary shapes through recognition of principles of construction; basic relations, basic type figures; representation of fabricated objects through the more commonly used methods of drawing; technical sketching; technical specification; glossary; historical; guidance factors.

Sem. I, II. Credit: 2

Mr. Green (2-6)

Industrial Education 234 Mechanical Drawing II

Prerequisite: Industrial Education 121.

Application of the principles of mechanical drawing in the solution of advanced problems of representation, involving various construction materials and processes. Advanced problems in projections, intersections, revolutions, developments, etc.

Sem. I, II. Credit: 2

Mr. Green (2-8)

Industrial Education 226 General Drawing I

Prerequisites: Industrial Education 118, 121

The place of drawing in general education. Organization patterns, basic type figures, basic relations. Consumer relations. Typical problems involving the use of flow sheets, operation diagrams, simple survey and map making, comparative value charts, simple working drawings and other problems relating to general education.

Mr. Green Credit: 2

Industrial Education 228 General Drawing II

Prerequisites: Industrial Education 121, 118.

This course is designed for the student who wishes to plan course material in syllabus form in his fields of concentration. The syllabus is planned on a definite time basis on the junior high school, senior high school or vocational school levels. A series of detailed drawings supplemented by brief specifications for each drawing is required.

Sem. I. II, Jr. or Sr. year. Credit: 2

Mr. Ray (2-8)

Industrial Education 227 Machine Drawing I

Prerequisites: Industrial Education 121, 118, and one course from the metal work group.

A popular treatise on mechanisms using drawing as the principal medium of representation. Working drawings, flow sheets. operation diagrams.

Sem. I, II. Credit: 2

Mr. Green (2-6)

Industrial Education 229 Machine Drawing II

Prerequisites: Industrial Education 227, Mathematics 211.

Analysis of Motions — uniform, simple harmonics, uniformly accelerated and retarded; cams—plate, cylindrical; spur gears—spur and pinion—pinion and rack—annular; bevel gears; worm and worm wheel; computations; use of odontograph.

Sem. I, II. Credit: 2

Mr. Green (2-6)

Industrial Education 329 Machine Drawing III

Prerequisite: Industrial Education 227.

Mechanical perspective by piercing points of visual rays. Angular perspective, parallel perspective. Use of measuring points, vanishing points of inclined lines. Special methods for determination of perspective of circles. Application of the principles of perspective in the free hand sketching of machine parts. Dimensioning perspective drawings.

Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Green (1-8)

Industrial Education 433 Machine Drawing IV

Prerequisite: Industrial Education 329.

Considerations of design from standpoint of strength, use, operation, manufacture, tool manipulations, cost; computations; use of standard references; detailing; pictorial assembly; design of jigs; to mechanism of general interest and use.

Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Green (1-8)

Industrial Education 118 Freehand Drawing I

A study of the basic fundamentals of freehand drawing, lines, circles, ellipses, drawing of geometric solids, freehand perspective; line, form, proportion, shading, study of still life, shop sketching, blackboard practice; study of lettering; pen and ink work; miniature sketches in pencil and ink; design term sketch.

Sem. I, II. Credit: 2
Mr. Ray (2-8)

Industrial Education 224 Freehand Drawing II

Prerequisite: Industrial Education 118.

Pen and ink work; designing of letters; study of alphabets; monograms, trade marks; seals; ornamental hanging signs; lamps in metal and wood; entrances, fences, design of electric fixtures, cabinet designing; garden furniture; industrial arts design, advertising layouts; psychology of advertising; color and design, water color; show card work.

Sem. I, II. Credit: 2
Mr. Ray (2-8)

Industrial Education 231 Architectural Drafting I

Prerequisites: Industrial Education 121, 118.

Fundamental elements of construction and the planning of buildings, lettering, conventions, and symbols; footings and foundations, sill construction, cornices; cellar windows; double-hung windows and casements for frame, stucco, and masonary structures; fireplaces; stairways; preparing preliminary drawings from sketches.

Sem. I, II. Credit: 2
Mr. Ray (2-8)

Industrial Education 233 Architectural Drafting II

Prerequisites: Industrial Education 219, 231.

Preparation of preliminary sketches and drawings; a working set of plans and elevations of a residence, consisting of first and second floor plans; four elevations; basement; details, cross-section perspective; specifications; estimate; heating and ventilation materials of construction; and term report on some phase of building.

Sem. I, II. Credit: 2
Mr. Ray (2-8)

Industrial Education 331 Architectural Drafting III

Prerequisites: Industrial Education 219, 231, 233.

The student chooses his own house design with approval of the instructor; prepares all of the plans, makes a model of the design, and landscapes a proposed lot or prepares an exhibit sheet of the proposed plan rendering in ink or water colors. Lectures on styles of the past and present; modernistic architecture; field trip to study types and furniture; field trip to study construction.

Sem. I, II; Jr. or Sr. Year. Credit: 2
Mr. Ray (2-8)

Industrial Education 431 Architectural Drafting IV

Prerequisites: Industrial Education 219, 233, 331.

Orders of architecture; history of architecture; reports on assignments; elements of law of contracts; heating and sanitation; business houses and public institutions; preparation of model displays and exhibits.

Sem. I, II; Jr. or Sr. Year. Credit: 2
Mr. Ray (2-8)

Industrial Education 471 Architectural Drawing V

Prerequisites: Industrial Education 231, 233, 331, 431.

Fundamentals of architectural design. Shades and shadows, coordinate planes, casting shadows, determination of shadow lines. Perspective drawing, terminology, types of perspective, classic orders, comparison, proportion, elementary principles of architectural rendering.

Sem. I, II. Credit: 2

Mr. Ray (2-8)

ELECTRICAL WORK

Industrial Education 119 Industrial Electricity I

Essentials of electricity including wire splicing, Ohm's Law experiments, cells and batteries, signal circuits, simple light and power circuits, house wiring, direct current lighting and power circuits, direct current generators and motors, practical applied problems.

Sem. I, II. Credit: 2

Mr. Good (3-4)

Industrial Education 343 Industrial Electricity II

Prerequisite: Industrial Education 119.

Magnetic circuits as applied to coils, motors, generators, and transformers. Insulation and insulators. Armature windings and winding projects. Mutual and self-inductance. Conduit wiring projects.

Sem. I, II; Jr. or Sr. year. Credit: 2

Mr. Good (3-4)

Industrial Education 345 Industrial Electricity III

Prerequisites: Industrial Education 119, 343.

Theory and essentials of alternating currents. Shop problems dealing with alternating current measuring instruments, transformers, and various types of alternating current motors and generators and their accessories.

Sem. I, II; Jr. or Sr. year. Credit: 2

Mr. Good (3-4)

GENERAL MECHANICS

Industrial Education 253 General Mechanics I

Prerequisites: Industrial Education 121, 119, 115, 107, 109.

Selections of jobs typical for the content courses in home mechanics; practical mechanics; and simple mechanics. General education is made the basis for the major portion of the shop assignments. Because of its general character, much of the work is adaptable to courses set up for girls in these fields. Students, in addition to their mechanical work, are required to make solutions of problems of management necessary to the successful operation of the general shop. Bench and mechanical equipment affords excellent opportunity for work in projects in woodwork, plumbing, electricity, woodfinishing, sheet metal repairs, and bench metal work.

Sem. I, II. Credit: 2

Mr. Tustison, Mr. Kranzusch, Mr. Brown (1-9)

Industrial Education 365 General Mechanics II

Prerequisite: Industrial Education 253.

Continuation of General Mechanics I in additional and advanced problems. Problems of arts and crafts nature are added to the already varied program. This additional field lends itself to work of an extracurricular character. New fields of general mechanics nature are explored and original research in developing new problems is stressed. The informational as well as the manipulative content is covered.

Sem. I, II; Jr. or Sr. year. Credit: 2

Mr. Tustison, Mr. Kranzusch, Mr. Brown (10)

Industrial Education 369 Industrial Mechanics I

Prerequisite: Junior Standing, or equivalent, in technical sequence.

Industrial Mechanics is a course designed to train teachers to develop the ability of high school students to recognize and interpret mechanical and social change in industry. A study is made of the power, mechanics, and materials involved in the various kinds of industries and in the machine and mechanical devices used by the average citizen. Information is collected and discussed on the kinds of work individuals do in industry, the educational qualifications and preparation they must have for

entrance into industry as a worker, and the effect of government regulations on industry and on the consumer.
Sem. II, Jr. or Sr. year. Credit: 2
Mr. Good

METAL WORK

Industrial Education 245 Auto Mechanics I

Prerequisites: Industrial Education 113, 119.
Seven weeks to the study, repair, and adjustments of the various units of the chassis not including the engine, on live cars brought into the shop. Body and fender repair and refinishing is emphasized in this course.
Sem. I, II. Credit: 2
Mr. Good, Mr. Kranzusch (2-6)

Industrial Education 247 Auto Mechanics II

Prerequisite: Industrial Education 245.
Modern shop practices in engine tune-up and in overhauling and repairing auto engines and their accessories. Reboring and honing cylinders; fitting new pistons, rings and piston pins; reseating, grinding, and testing valves, repairing and adjusting carburetors.
Sem. I, II. Credit: 2
Mr. Good, Mr. Kranzusch (2-6)

Industrial Education 341 Auto Mechanics III

Prerequisites: Industrial Education 245, 247
Electrical equipment of the automobile. Construction, principles of operation, adjustments and repair of the various types of circuits, operating units, and storage batteries. Practice in diagnosing, locating, and repairing electrical troubles on live cars.
Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Good, Mr Kranzusch (2-6)

Industrial Education 451 Auto Mechanics IV

Prerequisites: Industrial Education 245, 247, and 341.
For teachers and prospective teachers of auto mechanics, giving experience in the preparation of instructional units for junior and senior high schools and for vocational schools. Selection and organization of teaching material, shop lay-out, student routing and shop management, equipment selection, dispensing and checking of shop tools and equipment.
Sem. II, Jr. or Sr. year Credit: 2
Mr. Good, Mr. Kranzusch. (4-2)

Industrial Education 243 Foundry I

Molding, involving cutting and tempering molding sand preparatory to ramming bench and floor molds. Core making involving making and baking of cores for molds. Cupola practice, including operation of the cupola and the handling and pouring of molten metal. Selecting, mixing, and melting pig iron and machinery scraps to secure machinable qualities in the castings. Two or three heats of cast iron. Melting and pouring of brass and aluminum in a crucible.
Sem. I, II. Credit: 2
Mr. Milnes (2-8)

Industrial Education 337 Foundry II

Prerequisite: Industrial Education 243.
Advanced molding projects, match plates for production work; Metallurgy of the foundry. Several heats of iron, brass, and aluminum.
Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Milnes (2-8)

Industrial Education 339 Foundry III

Prerequisite: Industrial Education 337.
Advanced molding and core making problems, and cupola practice. Survey of the foundry trade. Field trips, preparation of instructional material.
Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Milnes (2-8)

Industrial Education 113 Machine Shop I

Construction and operation of the lathe, milling machine, drilling machine, shaper, and grinding machine. Shapes of the cutting tools, grinding, setting, and operating. Calculations to obtain the correct feeds and speed for cutting various metals. Related technical information. Projects involve basic processes on each machine.
Sem. I, II. Credit: 2
Mr. Milnes (2-8)

Industrial Education 235 Machine Shop II

Prerequisite: Industrial Education 113.
Spiral gear cutting and rack cutting involving the use of the milling machine. Internal and external square thread cutting on the lathe. Cylindrical grinding in the universal grinder. Stress upon related information pertaining to machine shop work.
Sem. I, II. Credit: 2
Mr. Milnes (2-8)

Industrial Education 237 Machine Shop III

Prerequisite: Industrial Education 235.
Worm gearing, tool and cutter grinding, and problems in tool making. Planning, drilling, and tapping cast iron machine parts. A survey of the trade is made with view to organizing material for teaching. Material uses and cost studies.
Sem. I, II. Credit: 2
Mr. Milnes (2-8)

Industrial Education 435 Machine Shop IV

Prerequisite: Industrial Education 237.
Bevel-gear cutting, punch and die making, internal grinding, problems in tool making. Studies of selection of appropriate materials. Organization of project material and instructional units.
Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Milnes (2-8)

Industrial Education 115 Sheet Metal I

Fundamental machine and hand tool operations; care, use, and adjustment of sheet metal equipment; the development of simple patterns involving parallel and radial lines; direct layout and short methods; study of markets, manufacture, buying, etc. of equipment and supplies.
Sem. I, II. Credit: 2
Mr. Keith, Mr. Chinnock (2-8)

Industrial Education 239 Sheet Metal II

Prerequisite: Industrial Education 115.
Drafting irregular patterns by means of triangulation; triangulation using the top view in the layout; triangulation using both top and side view in the layout, triangulation using the side view only in the layout, shop practice in the make-up of irregular fittings from various fields of sheet metal work.
Sem. I, II. Credit: 2
Mr. Keith, Mr. Chinnock (2-8)

Industrial Education 241 Sheet Metal III

Prerequisites: Industrial Education 115, 239.
Shop problems in blower and exhaust piping, architectural work, heating and ventilating, drafted and made up. Mensuration applied to sheet metal containers. Review of triangulation; advanced forms of parallel line and radial development.
Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Keith, Mr. Chinnock (2-8)

Industrial Education 333 Sheet Metal IV

Prerequisite: Industrial Education 115.
The working of copper, brass, aluminum, pewter, monel metal, etc.; their uses and application in sheet metal work; project involving soft and hard soldering, spinning, raising, chasing, seaming, piercing, etching, coloring, etc.; study of related and technical information, markets, and supplies.
Sem. I, II; Jr. and Sr. year. Credit: 2
Mr. Keith, Mr. Chinnock (2-8)

Industrial Education 335 General Metal I

Prerequisite: Industrial Education 113.
General shop of the trade group type. Organization, courses of study, layouts, equipment, operation, uses of instructional material, supplies. Shop work in selected projects representing bench metal, forging, heat treating, machine shop, oxy-acetylene welding.
Sem. I, II. Credit: 2
Mr. Keith, Mr. Chinnock (2-8)

Industrial Education 455 Oxy-acetylene and Electric Welding

Prerequisite: Industrial Education 335.
Setting up, operation, maintenance, and repair of generators, tanks, gauges, manifolds, lines and torches. Setting up operation, and maintenance of arc welding equipment. Emphasis on

gas and electric welding and cutting of all common metals. Instructional organization of gas and electric welding.
Sem. I, II; Jr. and Sr. year. Credit: 2
Mr. Keith (2-8)

Industrial Education 355 General Metal II

Prerequisite: Industrial Education 335 and 455.
Continuation of General Metal I. Advanced work in ornamental and tool forging oxy-acetylene welding, power hammer work, bench metal, electro-plating, heating treating, and the use of ceramic tile in combination with metal. A study is made of new machines, tools, and metals, their manufacturing costs, etc.
Sem. I, II; Jr. and Sr. year. Credit: 2
Mr. Keith, Mr. Chinnock (2-8)

PRINTING

Industrial Education 117 Printing I Elementary Composition

Elements of composition, stonework, and platen press work. Graded projects in straight composition involving basic operations of job printing, proof reading. Supplementary lectures and demonstrations given in definite teaching units.
Sem. I, II. Credit: 2
Mr. Baker, Mr. Brophy, and others. (2-8)

Industrial Education 255 Printing II Advanced Composition

Prerequisite: Industrial Education 117.
Advanced composition. Problems in display composition, stonework, and platen press work. An introduction to commerical problems and jobs, through use of typical projects. Allows gain in skill as craftsman. Supplementary lecture periods devoted to typographical design and its application.
Sem. I, II.
Mr. Brophy. Credit: 2

Industrial Education 257 Printing III Machine Composition

Prerequisites: Industrial Education 117, 255.
Study of intertype and linotype machines. Includes study of the complete mechanism, care, and operation of typesetting machines. Time divided between mechanism and practice operating.

Sufficient time is spent on study of mechanism of the machine to give a complete knowledge of principles and care.
Sem. I, II, Jr. or Sr. year. Credit: 2
Mr. Baker (3-7)

Industrial Education 351 Printing IV Printshop Mechanics

Prerequisites: Industrial Education 117, 255, 257, 459.
Course designed to cover study of adjustments and care of all machines found in the school and job shop, including platen and cylinder presses, automatic feeders, stereotype equipment, linotype, intertype, monotype, paper cutters, stitchers, and folders. Operation tests on each. Study and reference will include special work and storage equipment.
Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Baker (5-5)

Industrial Education 259 Printing V School Publications

Prerequisites: Industrial Education 117, 255.
Prepares teachers of printing to handle school periodicals as a part of their work. Study of school newspapers, magazines, and annuals from the viewpoint of organization and operation. Elements of journalism and their application from the viewpoint of the printing instructors. The Stoutonia, the weekly school newspaper, and morgue used as a laboratory.
Sem. I, Jr. or Sr. year. Credit: 2
Mr. Baker (6-4)

Industrial Education 361 Printing VI Printing Design

Prerequisites: Industrial Education 117, 255.
Application of elementary art and design to practical printing. Study of type design, commercial layouts, colors, papers, cover designs, folders, and booklets. Lectures, shop work and drawings. Application of block carving.
Sem. II, Jr. or Sr. year. Credit: 2
Mr. Baker (4-6)

Industrial Education 449 Printing VII Printing Economics

Prerequisites: Industrial Education 117, 255.
Acquaint the teacher of printing with economic problems of both commercial and school print shops. Shop organization and management, purchasing of equipment and supplies, shop layouts,

and cost estimating. Lectures supplemented by references and practical problems. Part time devoted to organization of material for instructional purposes, and development of printing tests.
Sem. I, Jr. or Sr. year. Credit: 2
Mr. Baker (6-4)

Industrial Education 459 Printing VIII Presswork

Prerequisites: Industrial Education 117, 225, 257.
Practical problems and operation of platen and cylinder presses, and automatic feeders for platen presses, imposition of large forms. Research problems in presswork. Field study of modern presses, multiple-color, rotary, rotogravure, offset, and automatic feeding machinery. Problems in bindery operations involving bindery machinery. Study of paper and inks and their importance in the press room. Field trips.
Sem. I, II, Jr. or Sr. year.
Mr. Brophy Credit: 2

Industrial Education 363 Printing IX (Graphic Arts)

Prerequisite: Junior Standing
An elementary course in basic arts reproductive processes intended for those wishing to offer general exploratory and informational units to classes of secondary school levels. A correlation between the fine and practical arts. Lecture, demonstration and production units are offered in letter press, stereotype, wood and resilient block-cutting, lithography, etching, silk screen, stencil, offset, ditto, engraving, aquatints, embossing, layout, paper-making, book binding, photo engraving, and steps in the production of a book. Emphasis on development of instructional material.
Mr. Baker Credit: 2-4

Industrial Education 359 Cooperative Printing (Off-Campus and Campus)

Prerequisites: Industrial Education 117, 255.
Full time work in a commercial shop under the supervision of a coordinator. Campus cooperative printing consists of production work in the school shop, under shop conditions. Maximum time required equivalent to two regular shop courses.
On request for qualified students.
All year. Credit: 2
Mr. Baker and Mr. Brophy. (2-4)

WOODWORK

Industrial Education 107 Elements of Hand Woodwork

Basic processes in hand woodwork. Study and performance in sharpening and care of common hand tools. Study and performance in getting out stock, laying out, and making common joints and construction through the use of exercises and a project involving fundamental or basic processes and points.
Sem. I, II. Credit: 2
Mr. Wigen, Mr. Paul Nelson (2-8)

Industrial Education 131 Elements of Machine Woodwork

Prerequisite: Industrial Education 107.
Basic course with emphasis on operation of stationary and portable machinery, combinations of operations typical in modern processes in industry. Applied in machining stock for one or more projects to be at least partially assembled. Use of working drawings, stock cutting bills, patterns, rods, jigs, and templates. Kinds, characteristics, and classifications of wood and lumber.
Sem. I, II. Credit: 2
Mr. Hansen (3-7)

Industrial Education 215 Case and Furniture Making (Cabinet Work I)

Prerequisites: Industrial Education 107, 131.
Making projects suitable for senior high school classes. Use of working drawings or models, or both, and stock cutting bills. A wide range of stationary and portable machinery will be used as extensively as possible. Order of procedure, a special system of face marking and laying out, smoothing, and assembling are stressed. Construction characteristics, kinds and uses of joints, and detailed dimensions for parts and location of joints will be studied. Tests will be taken on a laboratory basis for moisture content, shrinkage, expansion, and case hardening of wood; temperature and relative humidity of atmosphere, and consequent effect on wood will be taken. A graph showing daily changes in atmosphere will be made by the class.
Sem. I, II. Credit: 2
Mr. Hansen (3-7)

Industrial Education 311 Design in Furniture and Casework I (Formerly Cabinet Work II)

Prerequisites: Industrial Education 107, 131.

One major division deals with a study of laws, theories and principles of art in esthetic and structural design based upon utility. Ratios, proportion, space division, contour and surface enrichment, economic conservation of lumber standardized dimensions in lumber and hardware, construction characteristics and joints are also studied. The other major division is based on a shop problem which includes: Selection and designing major and novelty projects for elementary, junior or senior high school; or an occasional advanced project. Making full-size working drawings, stock cutting bills, patterns, rods, jigs, forms, knives and templates. A field trip is required when possible.

Sem. I, II, SS, Soph. or Jr. year. Credit: 2
Mr. Hansen (3-7)

Industrial Education 312 Cabinet and Furniture Work II

Prerequisites: Industrial Education 107, 131, 215. Open only to students concentrating in cabinet and furniture work.

Drawer and door construction and fitting. Glue and gluing problems. Veneer and veneering. Cabinet hardware. Occupational opportunities. Teaching problems. Buying and care of supplies and equipment. Shop layouts and tool systems. Extension and expansion in Cabinet Work I problems. This course is primarily provided for those who wish to make more than twelve credits in shop woodwork and will be scheduled with Cabinet Work I on a general shop basis by special approval of instructor and director.

Sem. I, II. Credit: 2
Mr. Hansen (2-8)

Industrial Education 411 Advanced Cabinet and Furniture Making (Cabinet Work III)

Prerequisites: Industrial Education 107, 131, 215, 311.

Advanced cabinet and furniture work on the individual problem basis. An extension, application, and try-out of the work done in Ind. Ed. 311, each student building the project he designed and made working drawings for. A factory field trip is recommended before taking this course. Special curricular and extracurricular freedom in the use of the mill room, cabinet shop, and equipment are offered in and after this course.

Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Hansen (10)

Industrial Education 219 Carpentry I

Prerequisites: Industrial Education 107, 131.

Surveying and staking out for buildings; concrete forms construction, floor framing, wall framing, and roof framing in actual house construction; the steel square is used in roof framing; sheathing, shingling, and insulating; correlation between workers in carpentry and between the building trades. Reference assignments and "round table" discussion.

Sem. I, II. Credit: 2
Mr. Paul C. Nelson (2-3)

Industrial Education 319 Carpentry II

Prerequisites: Industrial Education 107, 131, 219.

Review of equal pitch roof framing; study and construction of unequal pitch roof framing; cornice construction, porch framing and finishing; exterior trimming; scaffold construction; study of building materials; quantity surveying and ordering materials; projects for teaching carpentry; workers in the carpentry trades; reference assignments and "round table" discussions.

Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Paul C. Nelson (3-7)

Industrial Education 421 Carpentry III

Prerequisites: Industrial Education 107, 131, 219, 319.

Interior finishing; elements of stair building; polygonal and curved roof and ceiling construction; structural design in framing; structure and aesthetic design in finishing; organization teaching material and shop equipment for courses in carpentry; supervision of a carpentry teaching job; carpentry as a life work; reference assignments and reports.

Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Paul C. Nelson (10)

Industrial Education 116 General Woodwork I

Prerequisite: Industrial Education 107.

A general shop course which provides (1) information and prac-

tice in several basic kinds of woodwork and (2) observation and study of a revolving plan for general shop instruction.
The nine week term is divided into three three-week units and the class into three groups. Each group changes to a new unit of instruction at the end of three weeks.
Typical shop projects used in the three-week units are representative of upholstery, carpentry, and school shop equipment.
Sem. I, II. Credit: 2
Mr. P. C. Nelson (2-8)

Industrial Education 263a General Woodwork II (Millwork)

Prerequisites: Industrial Education 107, 131.
Extension of Industrial Education 131 with major attention on problems in industrial mill work. Projects will vary according to practical demands which furnish suitable problems for correlation with carpentry, architectural details, and cabinet work. Making sash, doors, built-in cabinet work, window and door frames, moldings or milling stock for other classes will be done on a production basis.
Sem. I, II. Credit: 2
Mr. Hansen (3-7)

Industrial Education 263b General Woodwork II (Mill-Wrighting)

Prerequisites: Industrial Education 107, 131.
Care and maintenance of woodworking machinery, machine saw and knife fitting, band saw brazing, aligning and adjusting parts of machines, babbiting and adjusting bearings, belting and power transmission problems, installing new equipment, laying out and making molding knives and general repair work to keep equipment in condition. Cutting angles, backing clearance, grinding bevels cutting speeds, rates of feed and shop layouts will be studied.
Sem. I, II. Credit: 2
Mr. Hansen (2-8)

Industrial Education 364 General Woodwork III

Prerequisites: Industrial Education 107, 131, 215.
A variety of form and surface enrichment to enlarge experiences which have been or will be acquired in other courses.
Form enrichment: Making tapered and cabriole legs, curved

rails, shaping, sticking, coping, molding, turning. Making curved parts by saw kerfing, by building up cores to be veneered, by laminating, and steaming and bending.
Surface enrichment: Veneering, inlaying, overlaying, carving, fluting, reeding, routing, punching, caning and piercing, or fret sawing.
These may be applied on parts for projects to be completed later, or on exercises which may be used as demonstration samples.
Sem. I, II; Jr. or Sr. year. Credit: 2
Mr. Hansen, Mr. P. C. Nelson (2-8)

Industrial Education 111 Woodturning I

Prerequisites: 107, 131, 118.
Spindle turning-concentric and offset. Face plate and chuck turning. Mandrel turning. Segmental and other built-up work. Boring and internal turning. Split turning, cutting spirals. Fluting. Inlaying. Applying finishes to turned articles. Shaping and sharpening woodturning tools. Standard and special turning tools Modern production methods and machines for woodturning.
Sem. I, II. Credit: 2
Mr. P. C. Nelson (2-8)

Industrial Education 447 Cooperative Work on Campus

Prerequisites: Industrial Education 107, 131, 215, 311.
This work is on a production basis. Building equipment, teaching demonstration models, etc., in the mill room and cabinet shop. Only such jobs as are suitable and provide definite training experience will be taken on.
Sem. I, II. Credit: 2
Mr. Hansen (2-4)

Industrial Education 448 Cooperative Work in Industry

Prerequisites: Industrial Education 107, 131, 215, 311.
Through affiliations with industry, opportunities are available for practical experience in woodturning plants in nearby cities. Applications on Smith-Hughes requirements are frequently made. A conference with instructor in charge is necessary before assignment.
Sem. I, II. Credit: 2
Mr. Hansen, Mr. Nelson, Mr. Wigen and others

Industrial Education 221a Painting and Decorating I

Study and practice in application and uses of basic finishes for composition material, wood, and metal. Methods of finishing old work. Practical experience with new types of finishing materials: plastic paints, bakelite, lacquers, textone, etc. Modern practice in the use of spraying equipment.

Sem. I, II; Jr. or Sr. year — Credit: 2 (2-8)
Mr. Wigen

Industrial Education 221b Painting and Decorating II

Prerequisite: Industrial Education 221a.

Study and practice in color theory, color mixing and applications in various mediums. Instruction sheets and pupil selection of special type finishes and methods; two tone antique methods, stenciling, stripping, glazing, blending, hazing, marbling, etc. Panels of special wall finishes, stippling, blending, texturing with plastic materials. Production work with the use of the spraying equipment. Experience with basic metal finishing methods and materials.

Sem. I, II; Jr. or Sr. year. — Credit: 2 (2-8)
Mr. Wigen

Industrial Education 225 Patternmaking I

Prerequisites: Industrial Education 107, 227.

Wood patterns of machine parts for casting in iron, brass, and aluminum. Study of types of work performed by patternmakers. Patternmaking allowances; shellacking a pattern to convey information to a molder. Patterns involving solid, split, and segmental construction; core boxes for whole and half cores; right and left hand, interchangeable baked sand cores. Patternmaking materials. Visit to a foundry.

Sem. I, II. — Credit: 2 (2-8)
Mr. Milnes

Industrial Education 325 Patternmaking II

Prerequisites: Industrial Education 225, 243.

Patterns for sheave wheel; bevel gear blank; mounted and gated patterns for production work; irregular shaped patterns and match plates; two inch soil pipe fittings involving bench lathe work and built up core box construction. Segmental pulley construction involving spokes, webs, and bosses. Survey of patternmaking and organization of instructional material.

Sem. I, II; Jr. or Sr. year. — Credit: 2 (2-8)
Mr. Milnes

Industrial Education 327 Patternmaking III

Prerequisite: Industrial Education 325.

Planning and building patterns for a small machine such as drill press, bench grinder, electric motor. Place of patternmaking in industry. Study of construction of patternmaking for sweep work in the foundry. Pattern shop equipment plans for school shop.

Sem. I, II; Jr. or Sr. year. — Credit: 2
Mr. Milnes

BUILDING CONSTRUCTION

Industrial Education 249 Masonry I

Elements of bricklaying, including spreading in the various bonds, corners, walls, chimneys; piers; building of pilasters, construction of arches, walling in window frames; building of fireplaces. Fundamentals of concrete work such as sidewalks, curbs, and gutters, foundations, walls, steps, cistern, septic tanks, retaining walls, stuccoing terrazza and ornamental garden furniture birdbaths, benches, flower boxes, tables, etc. Preparation of modern instructional material; analysis of the trade for instructional purposes, including related and occupational information. Demonstrations and class work carried on in actual trade practice conditions. Optional units in concrete work are available when necessary.

Sem. I, II. — Credit: 2
Mr. Ray

Industrial Education 251 Masonry II

Prerequisite: Industrial Education 249.

A continuation of Masonry I in advanced problems; speed work; motion study; analysis of the more complicated phases of masonry; related work and assignments for class reports. Possible instructional distributions in high schools and vocational including shop layouts. Costs of equipment, trade tests, scaffolding, safety and hygiene; estimating. Optional units in concrete work available when necessary.

Sem. I, II.
Mr. Ray — Credit: 2

Industrial Education 354 General Building Construction

Basic trade practice in bricklaying and concrete work. Modern trends in building and new materials. Study of accepted architectural styles in architecture. Actual practice in building construction in the field, such as sidewalks, fireplaces, garages, chimneys, birdbaths, benches, and jobs around the home. Appraising values in building. Problems built by students are very practical and suitable for use in the field by the layman. The basic fundamentals are given from the tradesman's viewpoint. Instructional material given for future reference, and writing instruction units in trade practice. Actual grade practice and work is carried on daily.

Sem. I
Mr. Ray Credit: 2

APPLICATION FOR ADMISSION

I hereby apply for admission to The Stout Institute to begin..... Please send me the necessary blanks for my high school credits.

Please address—

Name .....

Post Office Address .....

.....

Name of Parent or Guardian .....

Address of Parent or Guardian .....

.....

Date of Birth (month, date, year) .....

High School attended .....

Year graduated .....

Other schooling or experience .....

.....

.....

Signed .....

Date .....

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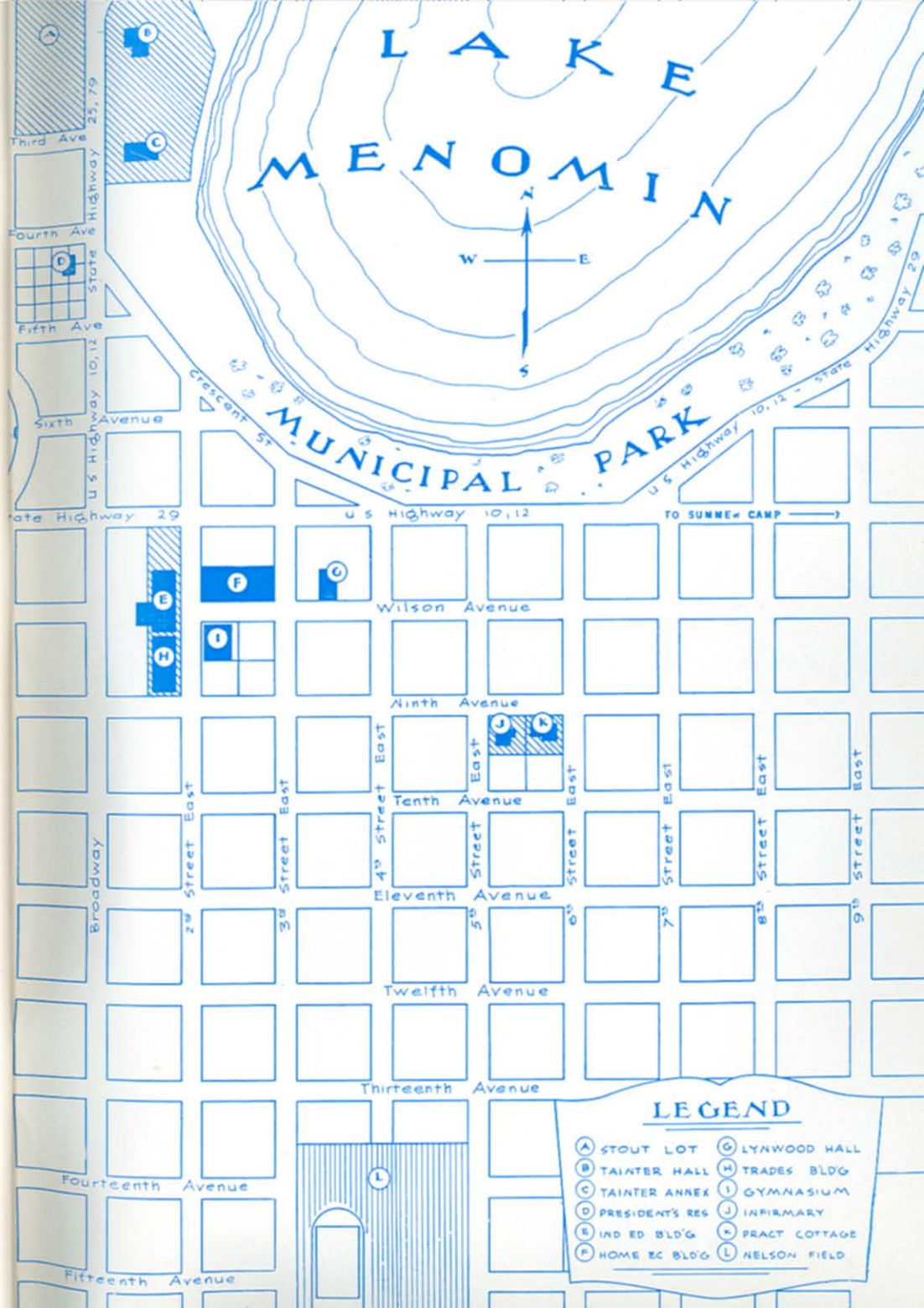
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